

Bottom View
Auto Body & Frame
DIMENSION CHARTS

-1974-



LANSING, MICHIGAN 48902

1974
CORRECTIONS FOR 1973 MANUAL

FORD GALAXIE

M dimension listed $36 \frac{1}{2}$ should be $35 \frac{1}{2}$.

LINCOLN CONTINENTAL

H dimension listed $36 \frac{1}{2}$ should be $35 \frac{1}{8}$.

MERCURY MONTEREY
& MARQUIS

M dimension listed $36 \frac{1}{2}$ should be $35 \frac{1}{2}$.

NEW ADDED FEATURE
METRIC CONVERSION TABLE AT END OF
AMERICAN CAR SECTION



TRU-WAY
Bottom View
**Body-Frame
Dimension Charts**

Published by
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by Harry M. Depew

The TRU-WAY BODY FRAME DIMENSION CHARTS are working charts of the automobile chassis as the repairman sees it. We attempt to provide usable dimensions for all sections giving particular attention to critical areas and to those sections most commonly damaged. Tru-Way charts are the result of actually measuring and averaging any variation of the dimensions of hundreds of assembled automobiles. In addition, those dimensions used by the various manufacturers in construction and inspection are shown whenever we feel they will be of value and when it is possible to check these dimensions on the assembled automobile with available shop equipment.

MEASURING INSTRUCTIONS found under each chart are intended to simplify and eliminate error in establishing the location of exact measuring points on the frame chart. Dimensions are given in inches. Where more than one model or body style of each make is shown on the same chart, dimensions are the same for all except as noted. Most special bodies will be found combined with closed model charts as general dimensions are the same. All measuring instructions referring to length dimensions, read from the front check point to the rear check point.

INSTRUCTIONS FOR THE USE OF THE TRU-WAY FRAME CHART

TOLERANCES — For practical purposes a $\frac{1}{8}$ inch tolerance ($\frac{1}{8}$ inch plus or minus) is recommended on most dimensions. This may be exceeded in some instances as manufacturing tolerances are more flexible in certain non critical portions of the frame. The $\frac{1}{8}$ inch tolerance is a good guide as the dimensions used on the Tru-Way charts are the average of three or more vehicles at points where any amount of variation is found.

SPECIAL TERMS USED IN MEASURING INSTRUCTIONS

We have attempted to standardize the wording of the measuring instructions, thus avoiding any confusion as the points we are referring to. Listed below are some of the terms used and their definition as applied on the Tru-Way charts.



Measure from edge of hole, rivet or bolt.



Measure from center of hole, rivet or bolt.

LENGTHS - WIDTHS - DIAGONALS — Most horizontal dimensions on the bottom view charts are direct and may be measured direct from point to point with a tape or tram between dimension points. The exceptions to this are indicated on the chart or in the measuring instructions. These will be referred to as tram dimensions. They are measured with the tram pointers extended from the tram bar so that the bar is parallel to the datum line or level plane of the body. Tram dimensions can be checked by suspending plumb bobs from frame and transferring dimension points to a floor layout for measuring.

DATUM LINE — An imaginary line from which dimensions are given in inches to establish the correct height of a given point on the automobile frame or body above this datum line. The datum gauges establish this line and provide a means of measuring any section of the frame being repaired or checked against the correct specifications for that particular automobile. These datum checks may also be made from any level work surface. The two x points are the base line and all height dimensions are established above this line.

It is essential that vehicle be supported either on its wheels, front and rear suspensions, or from the frame ends for all datum line checks. Center lifts such as a frame contact hoist, floor stands, etc., will allow reverse deflection resulting in false datum line dimensions.

REAR CONTROL ARM PIVOT BOLT — This is the bolt or pin that the rear axle torque arm bushing pivots upon and attaches the rear axle arm to the frame. Dimensions to this bolt are to the end of bolt.

REAR SPRING FRONT BOLT — The bolt, pin or stud that goes through the front eye and bushing of the rear spring and secures it to the frame or body.

FRONT SUSPENSION DIMENSION POINTS — For checking front suspension location in relation to frame, all charts show a dimension from a definitely established point at the lower suspension control arm (A-frame), to a given point on the frame proper. Unless the measuring instructions direct otherwise, this measurement is always checked with the vehicle raised enough to have control arms at the bottom of their travel, with upper control arm resting on its stop or bumper.

BALL JOINT POINTS — We use as a dimension point on various cars the ball joint stud. This dimension is measured from the center of the tip of ball stud that attaches and protrudes through spindle or knuckle support. Some charts will use the ball joint grease fitting or the center of the ball joint plug as the dimension point where it is found to be more accessible than the stud.

WE WISH TO EXPRESS OUR THANKS TO THE VARIOUS MANUFACTURERS, BOTH DOMESTIC AND FOREIGN, FOR THEIR COOPERATION AND ASSISTANCE IN PROVIDING MATERIAL FOR USE IN THE PREPARATION OF THIS MANUAL. THE MANUFACTURERS AND THEIR RESPECTIVE DIVISIONS TO WHICH WE EXPRESS OUR GRATITUDE ARE THOSE WHOSE PRODUCTS ARE INCLUDED IN THIS MANUAL.

NAME	CASTER DEGREES	CAMBER DEGREES	TOE IN
AM.MTRS.MATADOR & AMBASSADOR	1/2 P TO 1 1/2 P	L. 0 - R. 5/8 P	1/16 TO 3/16
AM.MTRS.HORNET, GREMLIN, JAVELIN	1/2 N TO 1/2 P	0 TO 5/8 P	1/16 TO 3/16
BUICK APOLLO	0 TO 1 P	1/4 N TO 3/4 P	1/8 TO 1/4
BUICK (except Century)	1/2 P TO 1 1/2 P	0 TO 1 P	0 TO 1/8
BUICK CENTURY	1 N TO 1/2 P	0 TO 1 P	0 TO 1/8
CADILLAC	1/2 N TO 1/2 P	3/8 N TO 3/8 P	1/16 TO 3/16
CADILLAC ELDORADO	1/2 N TO 1/2 P	3/8 N TO 3/8 P	0 TO 1/16
CHEVROLET	0 TO 2 P	0 TO 1 1/4 P	0 TO 3/16
CHEVROLET CHEVELLE	2 N TO 0*	0 TO 1 1/4 P	0 TO 3/16
CHEVROLET NOVA	1/2 N TO 1 1/2 P	0 TO 3/4 P	1/16 TO 5/16
CHEVROLET VEGA	1 1/4 N TO 1/4 N	0 TO 3/4 P	3/16 TO 5/16
CHEVROLET CAMARO	1 N TO 1/2 P	1/4 P TO 1 1/4 P	1/16 TO 5/16
CHEVROLET MONTE CARLO	4 P TO 6 P	0 TO 1 1/4 P	0 TO 3/16
CHEVROLET CORVETTE(Man.Str.Front) (Rear)	0 TO 2 P**	0 TO 1 1/4 P	1/8 TO 3/8
CHRYSLER & IMPERIAL	1 3/4 N TO 1/2 P***	1 1/8 N TO 5/8 N	1/32 TO 3/32
DODGE (ALL)	1 3/4 N TO 1/2 P***	0 TO 3/4 P	1/16 TO 1/4
FORD	0 TO 4 P	0 TO 3/4 P	1/16 TO 1/4
FORD MAVERICK	2 1/2 N TO 1 1/2 P	1/2 N TO 1 P	1/16 TO 7/16
FORD MUSTANG II	1/4 N TO 1 3/4 P	3/4 N TO 1 1/4 P	1/16 TO 3/8
FORD TORINO	1/2 P TO 3 1/2 P	1/2 N TO 1 1/2 P	0 TO 1/4
FORD PINTO	3/4 N TO 3 1/4 P	3/8 N TO 1 1/8 P	0 TO 3/8
LINCOLN CONTINENTAL	1/2 N TO 3 1/2 P	1/4 N TO 1 3/4 P	1/8 TO 3/8
MERCURY & METEOR	0 TO 4 P	1/4 N TO 1 1/2 P	0 TO 3/8
MERCURY MONTEGO & COUGAR	1/2 P TO 3 1/2 P	1/2 N TO 1 P	1/16 TO 7/16
MERCURY COMET	2 1/2 N TO 1 1/2 P	1/4 N TO 1 1/8 P	0 TO 3/8
OLDSMOBILE CUTLASS	1/2 N TO 1/2 P	3/4 N TO 1 1/4 P	1/16 TO 3/8
OLDSMOBILE 88 & 98	1/2 P TO 1 1/2 P	0**** TO 1 P	0 TO 1/8
OLDSMOBILE OMEGA	0 TO 1 1/2 P	0**** TO 1 P	0 TO 3/8
OLDSMOBILE TORONADO	2 1/2 N TO 1 1/2 N	1/4 N TO 3/4 P	1/8 TO 1/4
PLYMOUTH (ALL)	1 3/4 N TO 1/2 P***	1/4 N TO 3/4 P****	0 TO 1/8
PONTIAC	1/2 P TO 1 1/2 P	0 TO 3/4 P	1/16 TO 1/4
PONTIAC FIREBIRD	3/4 N TO 1/4 P	0 TO 1 1/2 P	0 TO 1/8
PONTIAC LeMANS & GRAND PRIX	1 1/2 N TO 1/2 P	1/2 P TO 1 1/2 P	1/8 TO 1/4
PONTIAC VENTURA II	0 TO 1 P	0 TO 1 1/2 P	0 TO 1/8
THUNDERBIRD & LINCOLN MARK IV	1/2 P TO 3 1/2 P	1/4 N TO 3/4 P	1/8 TO 1/4
		1/4 N TO 1 3/4 P	1/16 TO 7/16

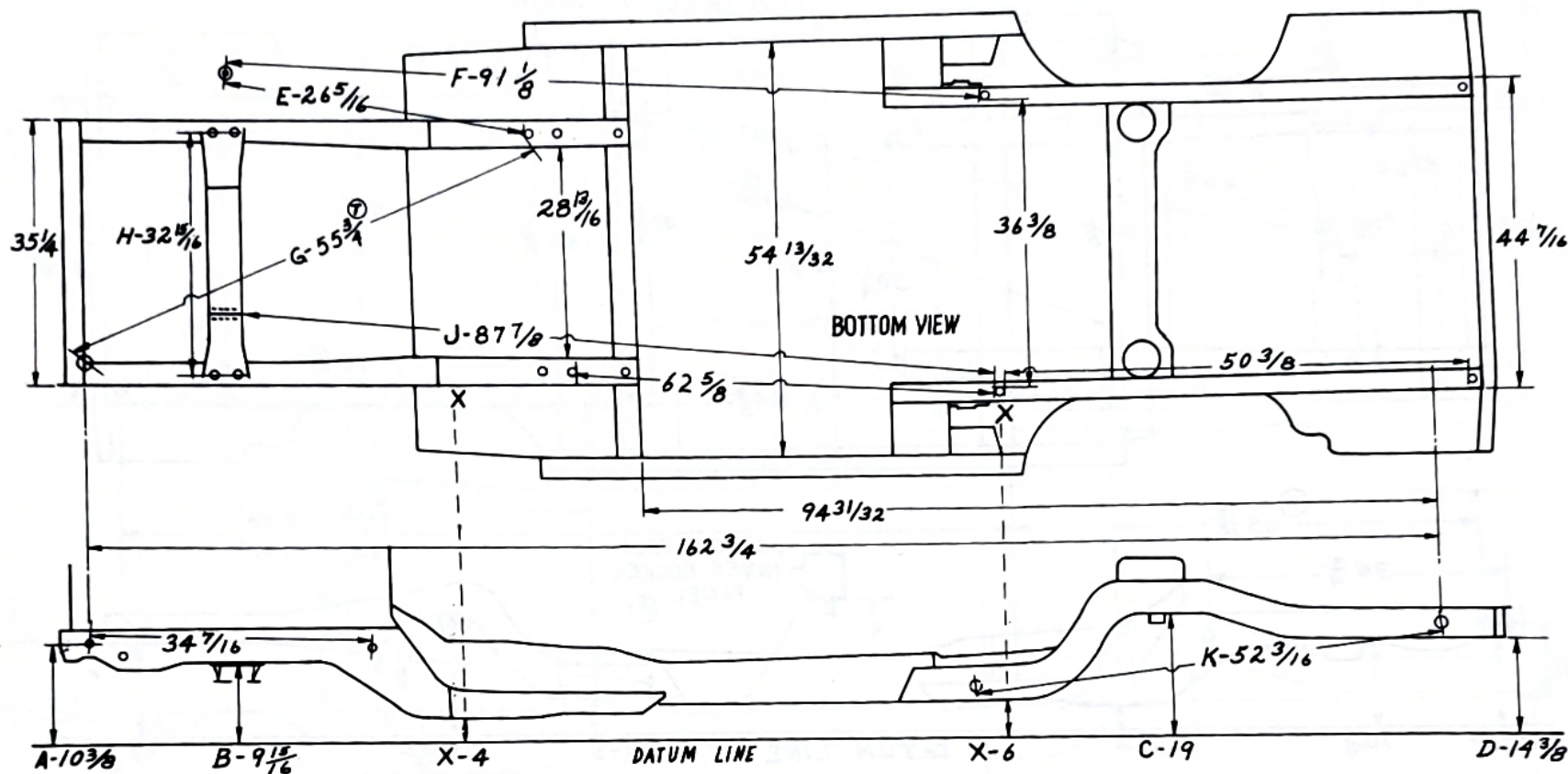
* Power Steering 1 N TO 1 P

*** Power Steering 1/2 N TO 1 3/4 P

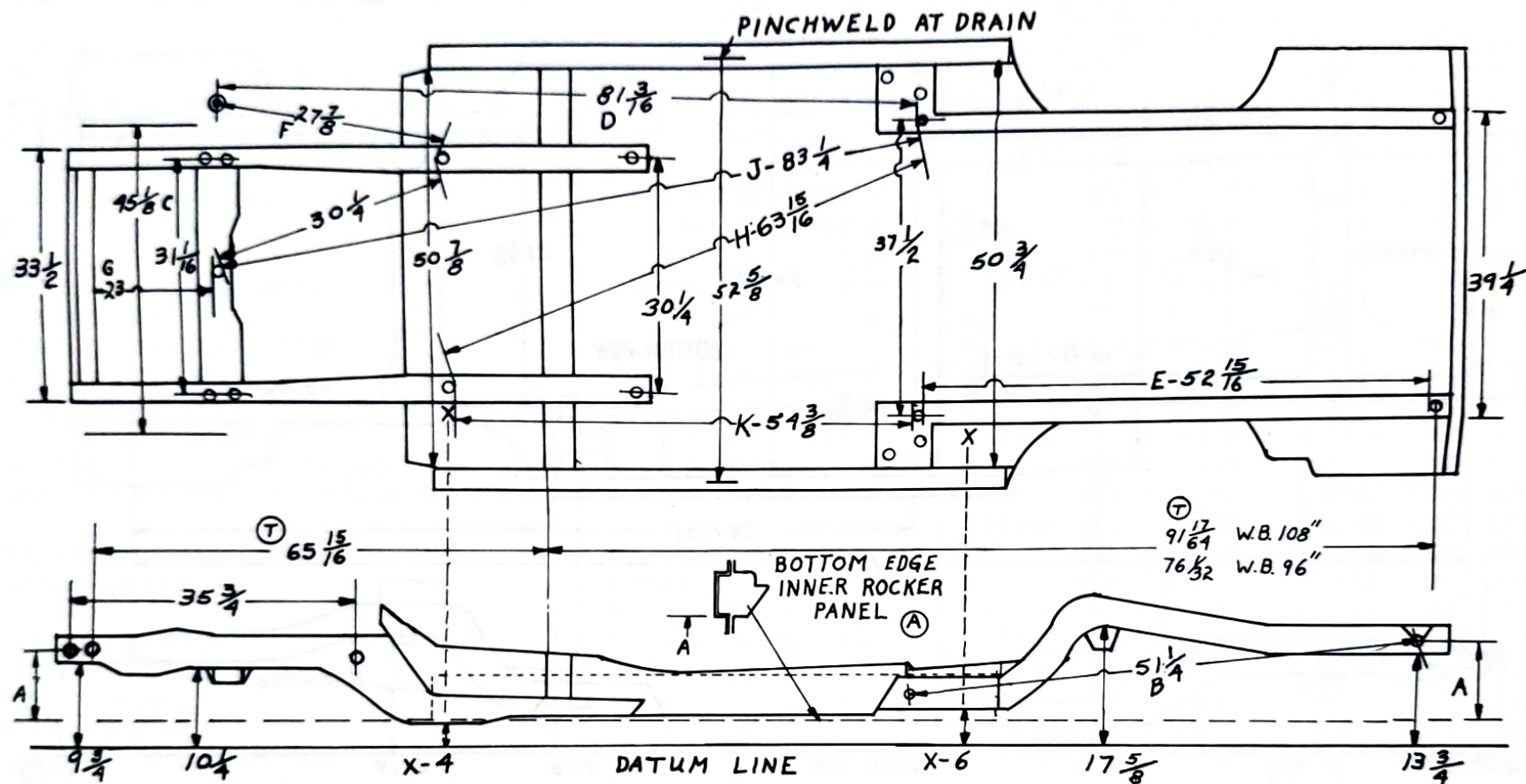
** Power Strg. 1 1/4 P TO 3 1/4 P

**** Camber 1/2 more Positive on left side

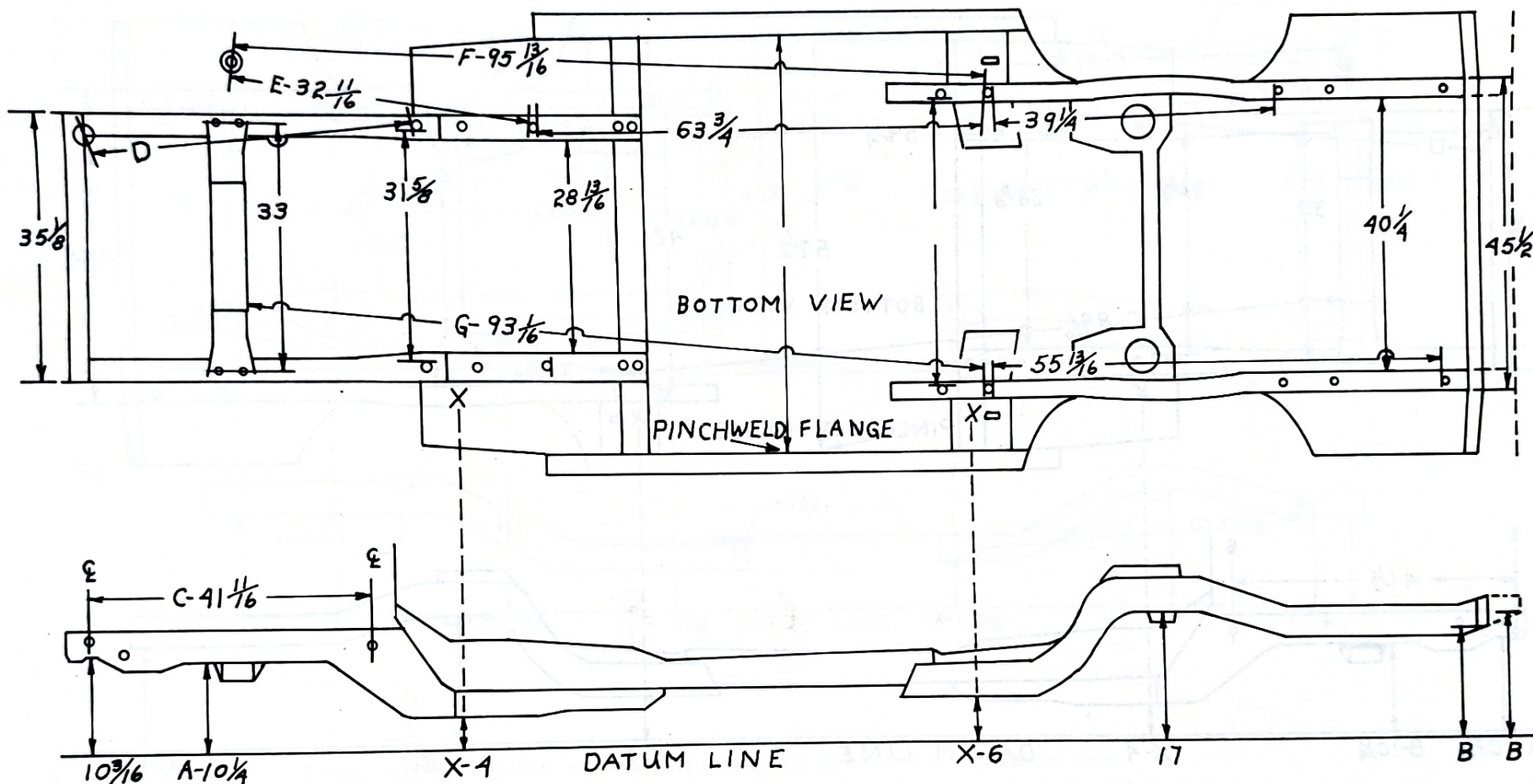
1974 Alignment Specifications



- | | |
|--------------|---|
| A - 10 3/8 | - Center of front bumper hole, to datum line, plus or minus 3/16. |
| B - 9 15/16 | - Bottom edge of side rail at suspension cross member area, to datum line. |
| C - 19 | - Bottom edge of side rail (just to rear of axle bumper), to datum line. |
| D - 14 3/8 | - Bottom edge of side rail, to datum line, plus or minus 3/16. |
| E - 26 5/16 | - Center of grease fitting at lower ball joint, to edge of hole. |
| F - 91 1/8 | - Center of lower ball joint grease fitting to edge of hole. |
| G - 55 3/4 | - TRAM - Rear bottom edge of cross member (at side rail junction), to edge of hole. |
| H - 32 15/16 | - Center to center of suspension cross member attaching holes or bolts. |
| J - 87 7/8 | - Rearmost edge of cross member (at flange) below pivot bolt to edge of hole. |
| K - 52 3/16 | - Center of rear spring front bolt, to center of rear spring shackle bushing hole. |
| X - | - Locations for mounting #2 and #3 datum gauges. Measure to the sighting pins from the bottom surface of sub frame rail at both X locations. FRONT X - 4". REAR X - 6". |



- A - This is a secondary body alignment datum line and is dimensioned from edge of inner rocker.
FRONT A - ($4\frac{3}{8}$ W.B. 108") ($5\frac{1}{2}$ W.B. 96") REAR A - ($8\frac{7}{16}$ W.B. 108" and W.B. 96")
- B - ($51\frac{1}{4}$ W.B. 108") ($45\frac{5}{16}$ W.B. 96") Center of front shackle spring bolt to center of rear shackle top pin.
- C - $45\frac{1}{8}$ - TOP SIDE - Between inner face of R and L wheelhouse at point in line with upper shock attachment.
- D - ($81\frac{3}{16}$ W.B. 108") ($73\frac{3}{8}$ W.B. 96") Center of lower ball joint grease fitting to edge of indicated hole plus or minus $\frac{3}{16}$.
- E - ($52\frac{15}{16}$ W.B. 108") ($44\frac{3}{16}$ W.B. 96") Edge of hole direct to edge of hole.
- F - $27\frac{7}{8}$ - Center of lower ball joint grease fitting to edge of indicated hole plus or minus $\frac{3}{16}$.
- G - 23 - From rearmost bottom edge of forward cross member to edge of hole at suspension member.
- H - ($63\frac{15}{16}$ W.B. 108") ($57\frac{5}{16}$ W.B. 96") Edge of hole direct to edge of hole.
- J - ($83\frac{1}{4}$ W.B. 108") ($75\frac{1}{4}$ W.B. 96") Edge of hole direct to edge of hole.
- K - ($54\frac{3}{8}$ W.B. 108") ($46\frac{1}{2}$ W.B. 96") Edge of hole direct to edge of hole.
- X - Locations for mounting #2 and #3 datum gauges. Measure to the sighting pins from the bottom surface of the sub frame rail. FRONT X - 4". REAR X - 6".



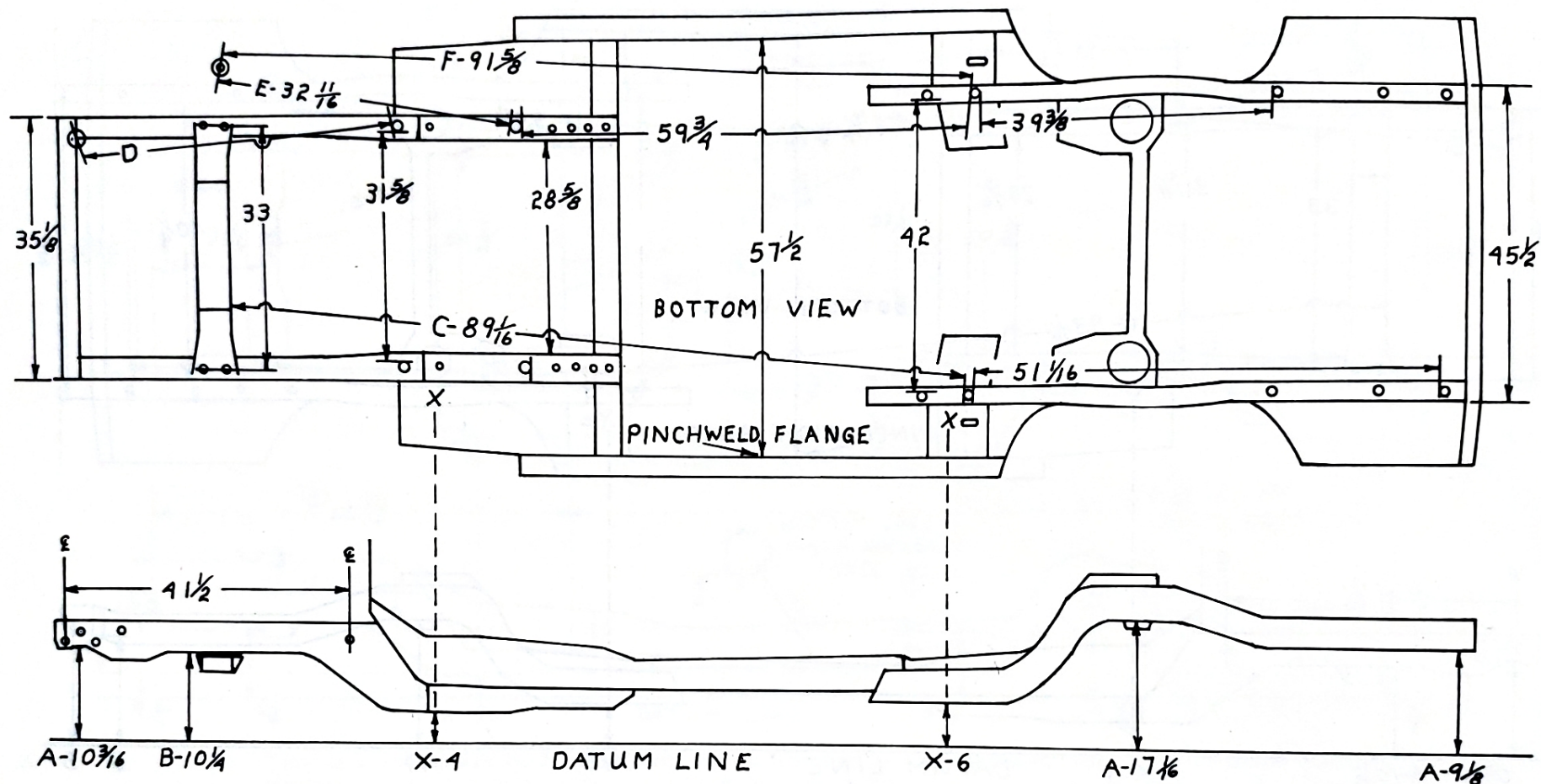
- A - 10 1/4 - Bottom surface of side rail (at cross member area), to datum line.
- B - (12 3/8 W.B.118") (11 W.B.122") - Lower flat surface of rear cross member, to datum line.
- C - (41 11/16 W.B.118") (34 1/2 W.B.122") - Center to center of indicated holes.
- D - (45 3/4 W.B.118") (46 1/4 W.B.122") - Rear bottom edge of cross member (at side rail junction) to edge of hole.
- E - (32 11/16 W.B.118") (36 1/2 W.B.122") - Center of lower ball joint grease plug to edge of hole plus or minus 3/16.
- F - (95 13/16 W.B.118") (99 5/8 W.B.122") - Center of lower ball joint grease plug to edge of hole plus or minus 3/16.
- G - (93 1/16 W.B.118") (97 W.B.122") - Rearmost edge of cross member at lower control arm mounting pin to edge of hole.
- X - - Locations for mounting #2 and #3 datum gauges. Measure to sighting pins from bottom surface of sub frame rail. FRONT X - 4". REAR X - 6".

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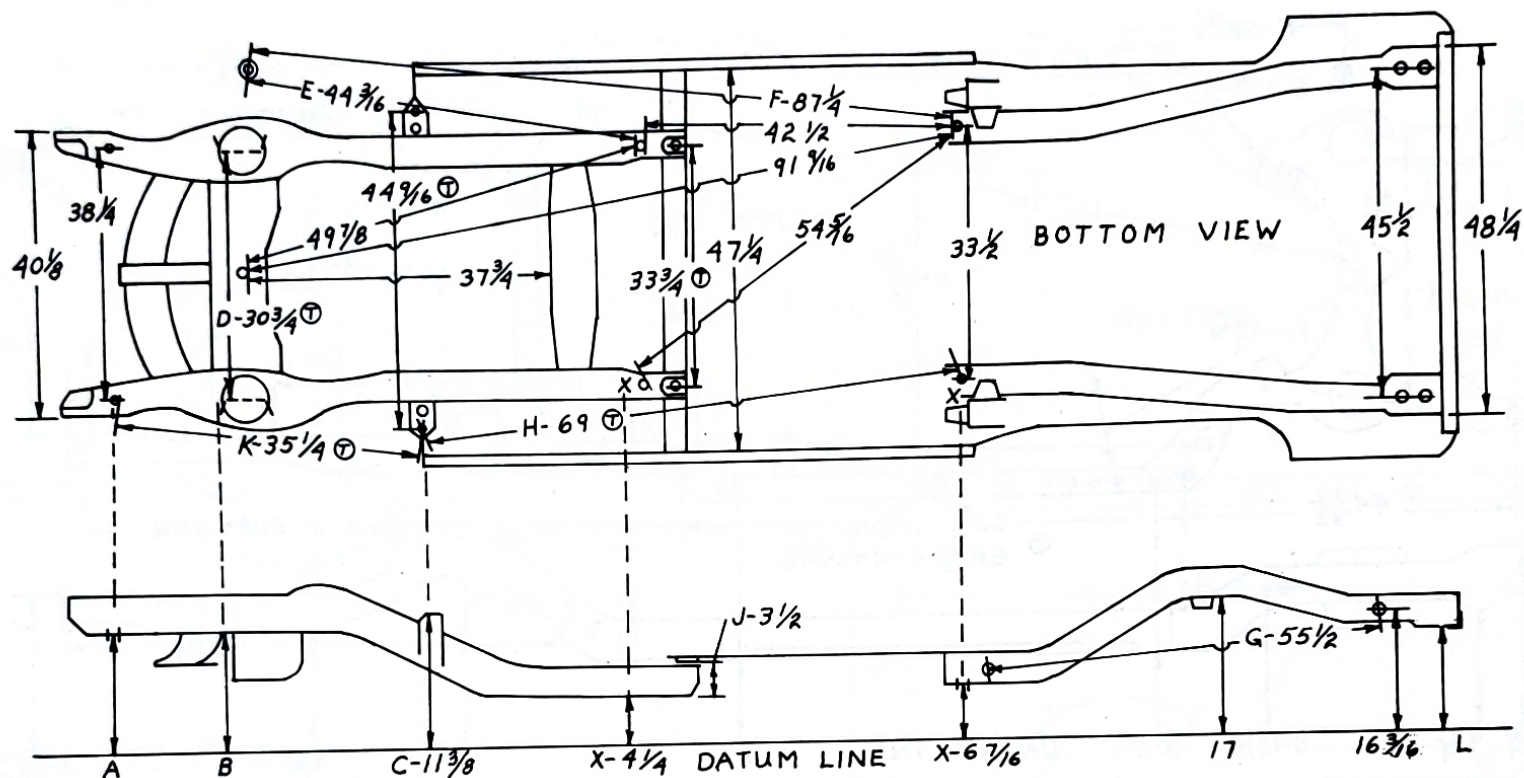
1974 American Motors
Matador-Ambassador

4 DR & Sta.Wag.Matador
Ambassador

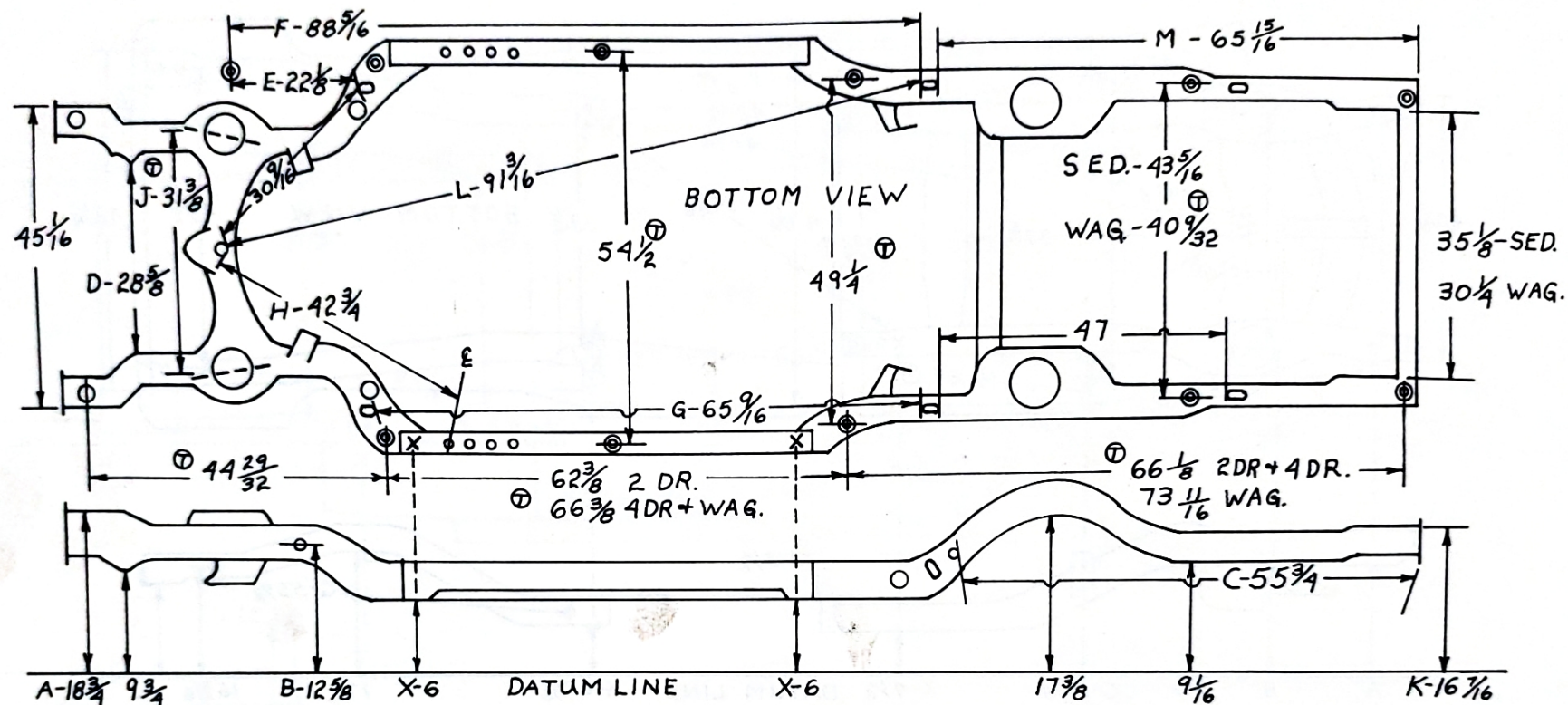
118" W.B.
122" W.B.



- | | |
|--------------|---|
| A - | - These dimensions are from the lower surface of frame side rail, to datum line. |
| B - 10 1/4 | - Bottom surface of side rail (at cross member area) to datum line. |
| C - 89 1/16 | - Rearmost edge of cross member at lower control arm mounting pin, to edge of hole. |
| D - 45 3/4 | - Rear bottom edge of cross member (at side rail junction), to edge of hole. |
| E - 32 11/16 | - Center of lower ball joint grease plug to edge of hole plus or minus 3/16. |
| F - 91 5/8 | - Center of lower ball joint grease plug to edge of hole plus or minus 3/16. |
| X - | - Locations for mounting #2 and #3 datum gauges. Measure to sighting pins from the bottom surface of sub frame rail. FRONT X - 4". REAR X - 6". |

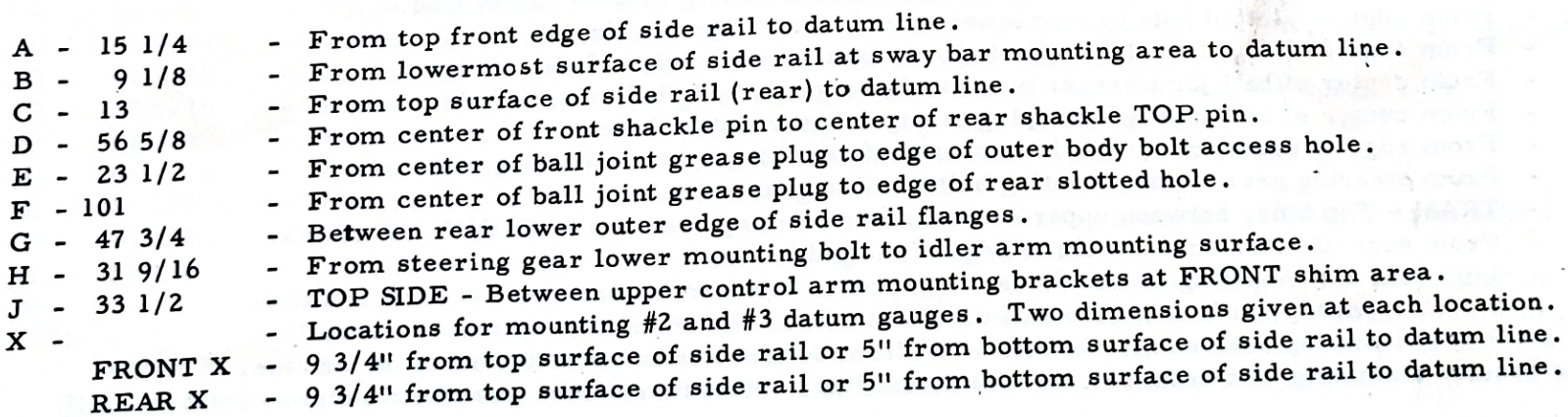


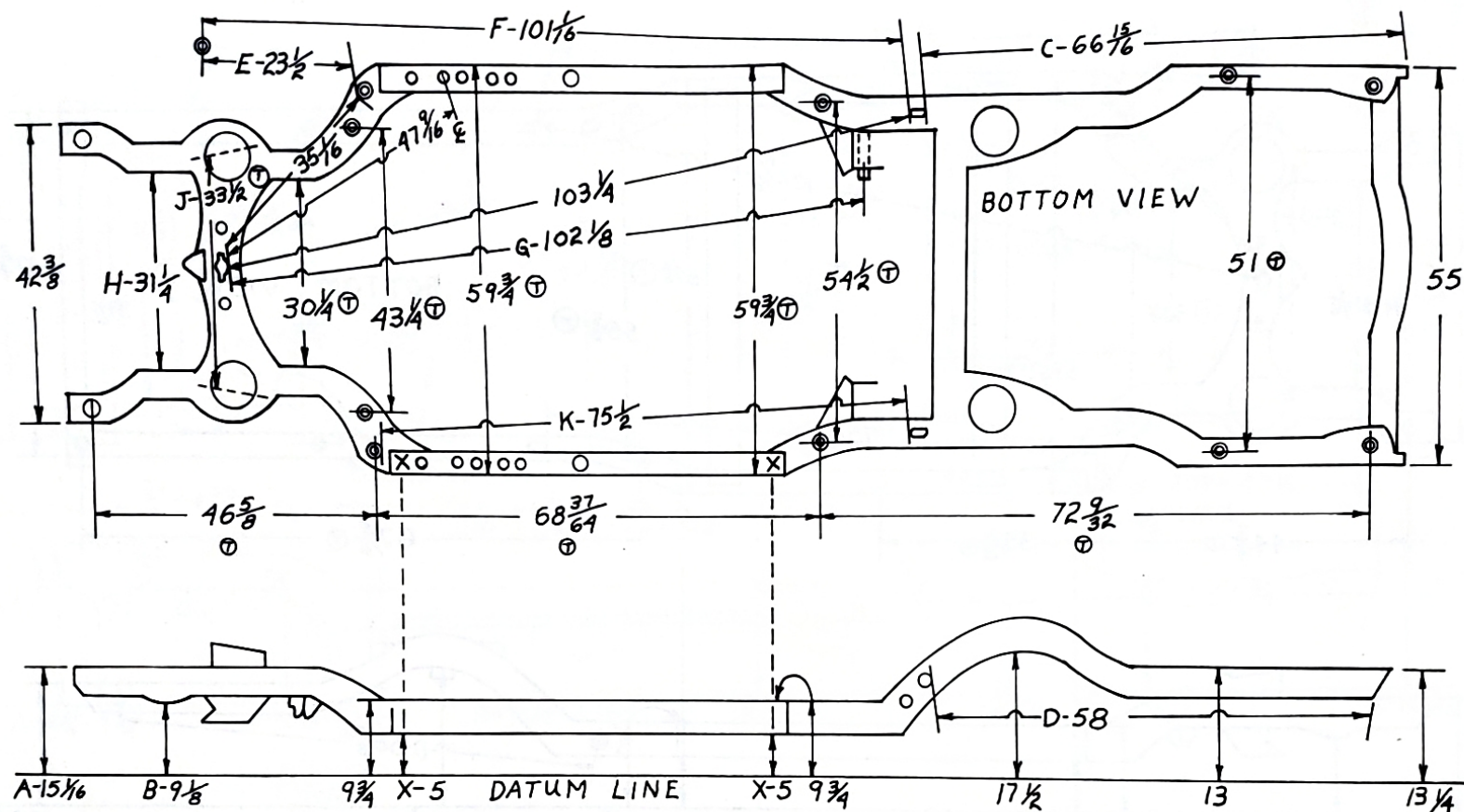
- | | |
|-------------|--|
| A - 10 3/4 | - From bottom surface of side rail alongside gauge hole, to datum line. |
| B - 10 3/4 | - From bottom surface of side rail just forward of spring pocket, to datum line. |
| C - 11 3/8 | - Bottom surface of #1 body support bracket (alongside gauge hole), to datum line. |
| D - 30 3/4 | - TRAM - TOP SIDE - Between upper control arm inner shaft seats (at shim contact area). |
| E - 44 3/16 | - Center of lower ball joint grease fitting to edge of hole. |
| F - 87 1/4 | - Center of lower ball joint grease fitting to edge of hole. |
| G - 55 1/2 | - Center of rear spring front bolt, to center of rear spring shackle top pin. |
| H - 69 | - TRAM - Center of gauge hole alongside #1 body bolt, to center of gauge hole at rear sub frame. |
| J - 3 1/2 | - From bottom surface of body floor reinforcement at bolt area, to bottom edge of side rail. |
| K - 35 1/4 | - TRAM - Rear edge of front gauge hole, to center of gauge hole alongside #1 body bolt. |
| L - 14 1/4 | - From end of side rail (lower surface) just forward of X member flange, to datum line. |
| X - | - Locations for mounting #2 and #3 datum gauges. |
| FRONT X | - Adjust sighting pin 4 1/4" below bottom outside edge of side rail. |
| REAR X | - Adjust sighting pin 6 7/16" below bottom surface of sub frame at gauge hole area. |



- A - 18 3/4 - From top of rail directly behind radiator support mounting hole, to datum line.
 B - 12 5/8 - From center of flanged tie down hole to datum line.
 C - (55 3/4 - 2 DR & 4 DR) (63 1/8 - Sta.Wag.) - Edge of tie down hole to lower bottom outer flanged edge of side rail.
 D - 28 5/8 - Between side rails at lower steering gear bolt to idler arm mounting surface.
 E - 22 1/8 - Center of lower ball joint grease fitting, to edge of hole.
 F - (88 5/16-2 DR) (92 5/16 - 4 DR & Sta.Wag.) - Center of ball joint grease fitting, to edge of hole.
 G - (65 9/16-2 DR) (69 5/8 - 4 DR & Sta.Wag.) - Edge to edge of indicated holes.
 H - 42 3/4 - Edge of cross member hole to center of indicated hole.
 J - 31 3/8 - TRAM - TOP SIDE - Between upper control arm inner shaft seats at front shim contact surface.
 K - 16 7/16 - Rear top surface of frame rail (at body bolt area) to datum line.
 L - (91 3/16-2 DR) (94 15/16 - 4 DR & Sta.Wag.) - Edge to edge of indicated holes.
 M - (65 15/16- 2 DR & 4 DR) (73 - Sta.Wag.) - Edge of indicated hole to lower bottom outer edge of side rail.
 X - - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins to 6" below the lowermost surface of the frame side rail at the locations indicated.

Ⓣ Dimensions require tramming with tram bar level or parallel to plane of body; other dimensions are direct.



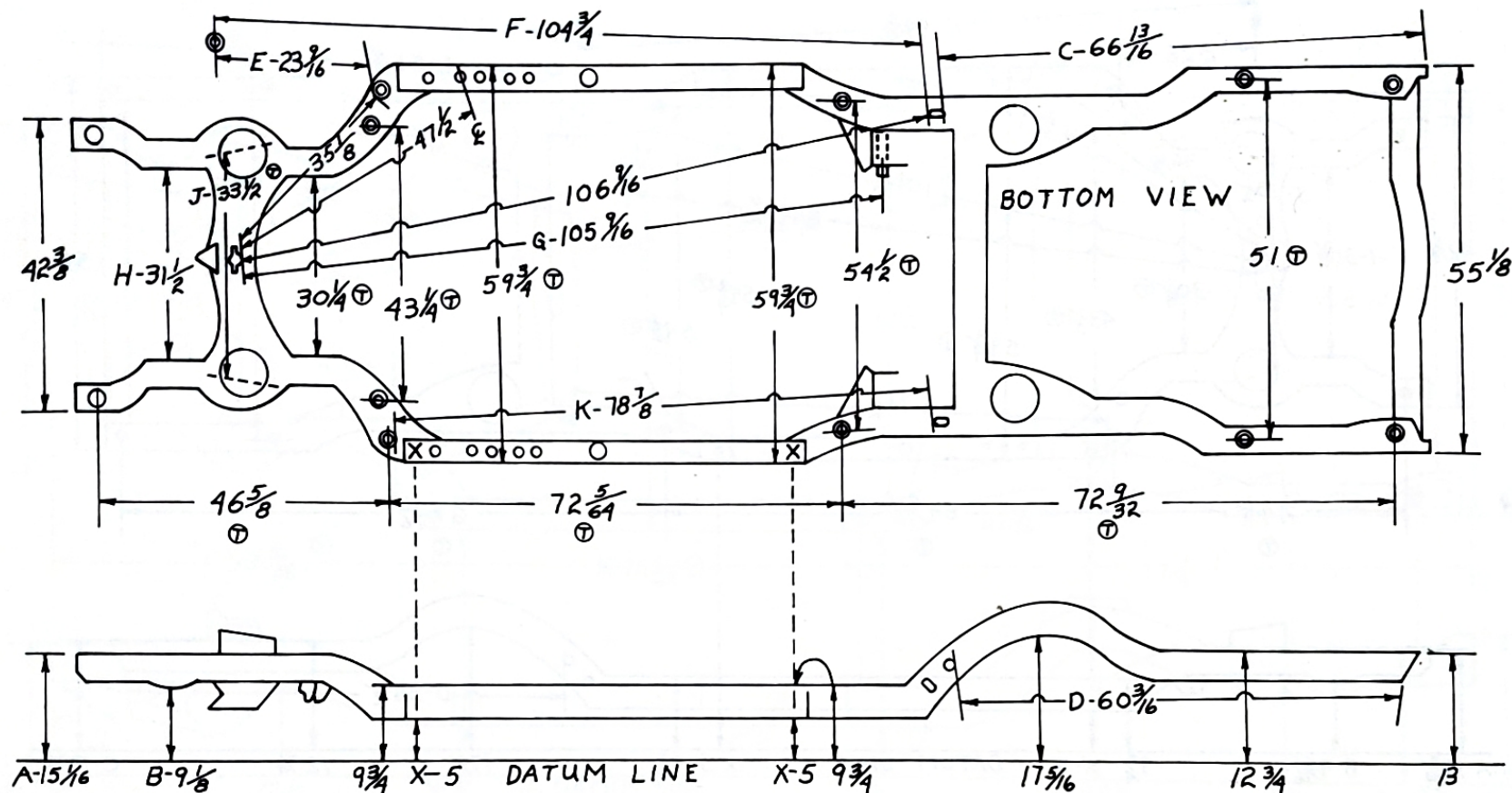


- A - 15 $\frac{1}{16}$ - From top front edge of side rail to datum line.
- B - 9 $\frac{1}{8}$ - From lowermost surface of side rail at sway bar mounting area to datum line.
- C - 66 $\frac{15}{16}$ - From edge of slotted hole to rear lower outer bottom edge of side rail.
- D - 58 - From edge of flanged tie down hole to lower bottom outer edge of side rail.
- E - 23 $\frac{1}{2}$ - From center of ball joint grease plug to edge of outer body bolt access hole.
- F - 101 $\frac{1}{16}$ - From center of ball joint grease plug to edge of rear slotted hole.
- G - 102 $\frac{1}{8}$ - From edge of cross member hole to center of rear torque arm mounting pin.
- H - 31 $\frac{1}{4}$ - From steering gear lower mounting bolt to idler arm mounting.
- J - 33 $\frac{1}{2}$ - TRAM - Top Side, between upper control arm mounting brackets at FRONT shim area.
- K - 75 $\frac{1}{2}$ - From edge of outer access hole to edge of slotted hole.
- X - - Locations for mounting #2 and #3 datum gauges. Two dimensions given at each location.
- FRONT X - 9 $\frac{3}{4}$ " from top surface of side rail or 5" from bottom surface of side rail to datum line.
- REAR X - 9 $\frac{3}{4}$ " from top surface of side rail or 5" from bottom surface of side rail to datum line.
- Ⓣ Dimensions require tramping with tram bar level to datum line. Other dimensions are direct point to point.

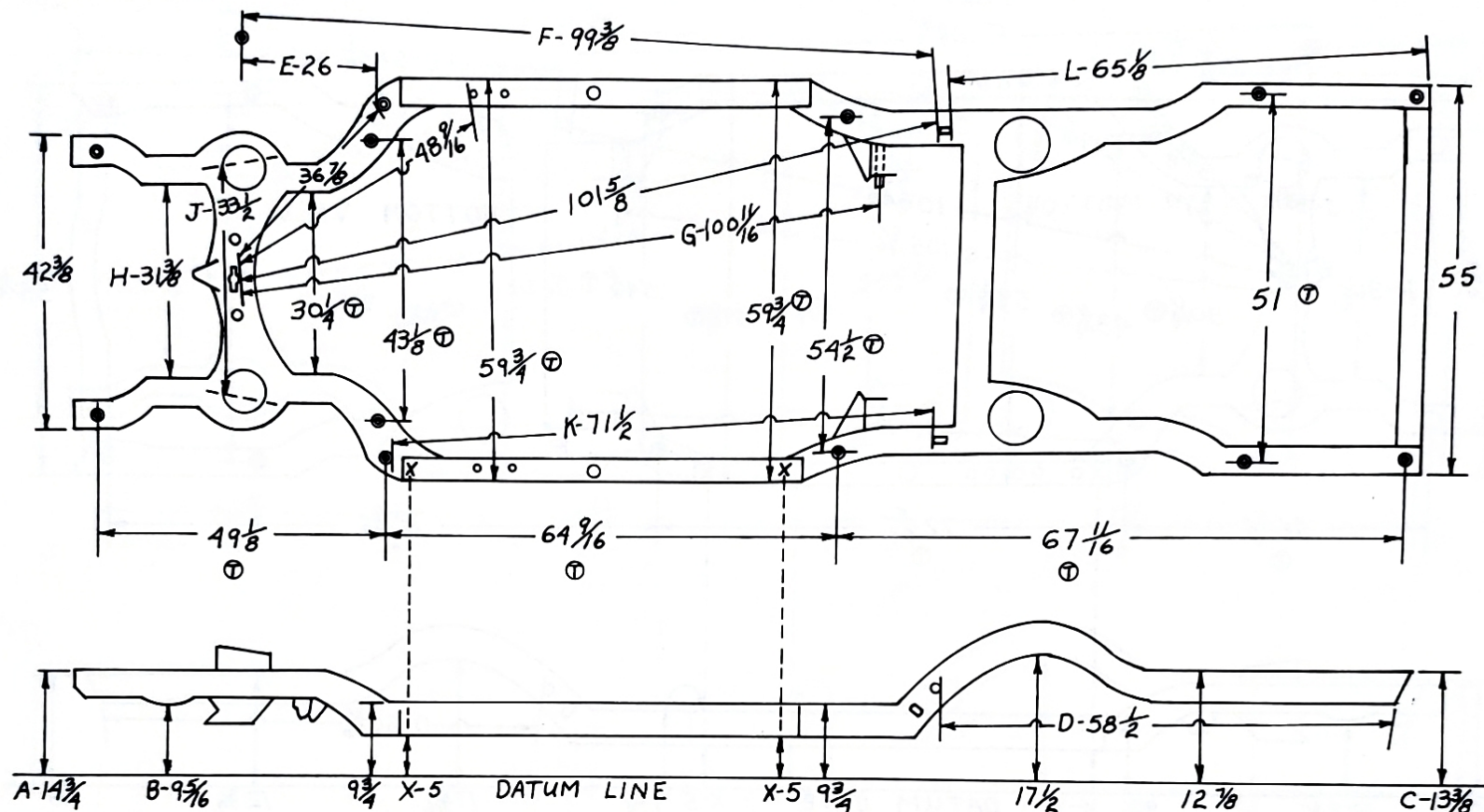
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1974 Buick LeSabre-Centurion

124" W.B.



- A - 15 1/16 - From top front edge of side rail to datum line.
- B - 9 1/8 - From lowermost surface of side rail at sway bar mounting area to datum line.
- C - 66 13/16 - From edge of slotted hole to rear lower outer bottom edge of side rail.
- D - 60 3/16 - From edge of tie down hole to lower bottom outer edge of side rail.
- E - 23 9/16 - From center of ball joint grease plug to edge of outer body bolt access hole.
- F - 104 3/4 - From center of ball joint grease plug to edge of rear slotted hole.
- G - 105 9/16 - From edge of cross member hole to center of rear torque arm mounting pin.
- H - 31 1/2 - From steering gear lower mounting bolt to idler arm mounting.
- J - 33 1/2 - TRAM - Top Side, between upper control arm mounting brackets at FRONT shim area.
- K - 78 7/8 - From edge of outer access hole to edge of slotted hole.
- X - - Locations for mounting #2 and #3 datum gauges. Two dimensions given at each location.
- FRONT X - 9 3/4" from top surface of side rail or 5" from bottom surface of side rail to datum line.
- REAR X - 9 3/4" from top surface of side rail or 5" from bottom surface of side rail to datum line.
- ⑦ Dimensions require tramming with tram bar level to datum line; other dimensions are direct point to point.

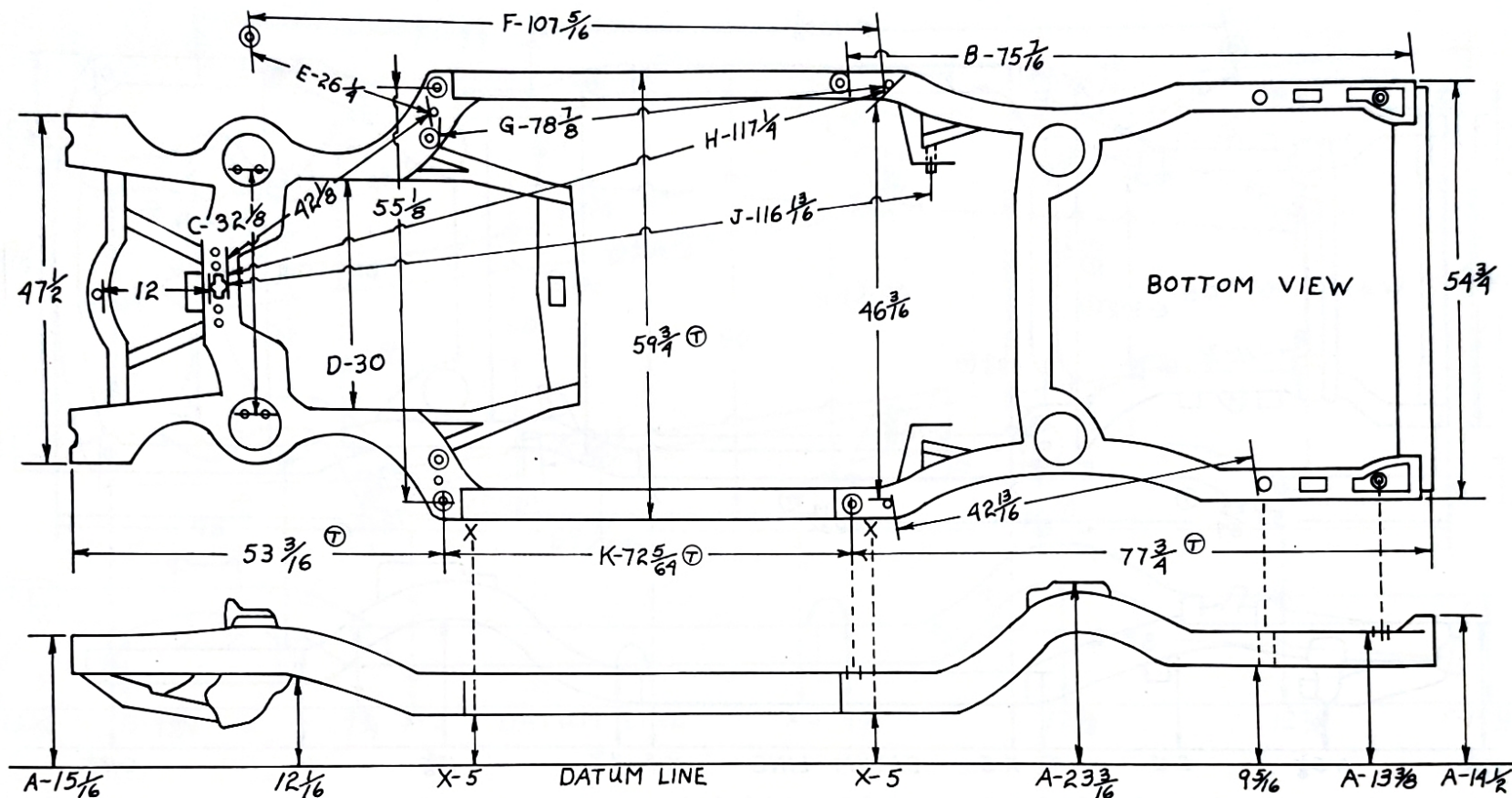


- A - $14 \frac{3}{4}$ - From top front edge of side rail to datum line.
- B - $9 \frac{5}{16}$ - From lowermost surface of side rail at sway bar mounting area to datum line.
- C - $13 \frac{3}{8}$ - From top surface of side rail (rear) to datum line.
- D - $58 \frac{1}{2}$ - From edge of tie down hole to lower bottom outer edge of side rail.
- E - 26 - From center of ball joint grease plug to edge of outer body bolt access hole.
- F - $99 \frac{3}{8}$ - From center of ball joint grease plug to edge of rear slotted hole.
- G - $100 \frac{11}{16}$ - From edge of cross member hole to center of rear torque arm mounting pin.
- H - $31 \frac{3}{8}$ - From steering gear lower mounting bolt to idler arm mounting (between side rails).
- J - $33 \frac{1}{2}$ - TRAM - TOP SIDE, between upper control arm mounting brackets at FRONT shim area.
- K - $71 \frac{1}{2}$ - From edge of outer access hole to edge of slotted hole.
- L - $65 \frac{1}{8}$ - From edge of slotted hole to rear lower outer bottom edge of side rail.
- X - - Locations for mounting #2 and #3 datum gauges. Two dimensions given at each location.

FRONT X - $9 \frac{3}{4}$ " from top surface of side rail or 5" from bottom surface of side rail to datum line.

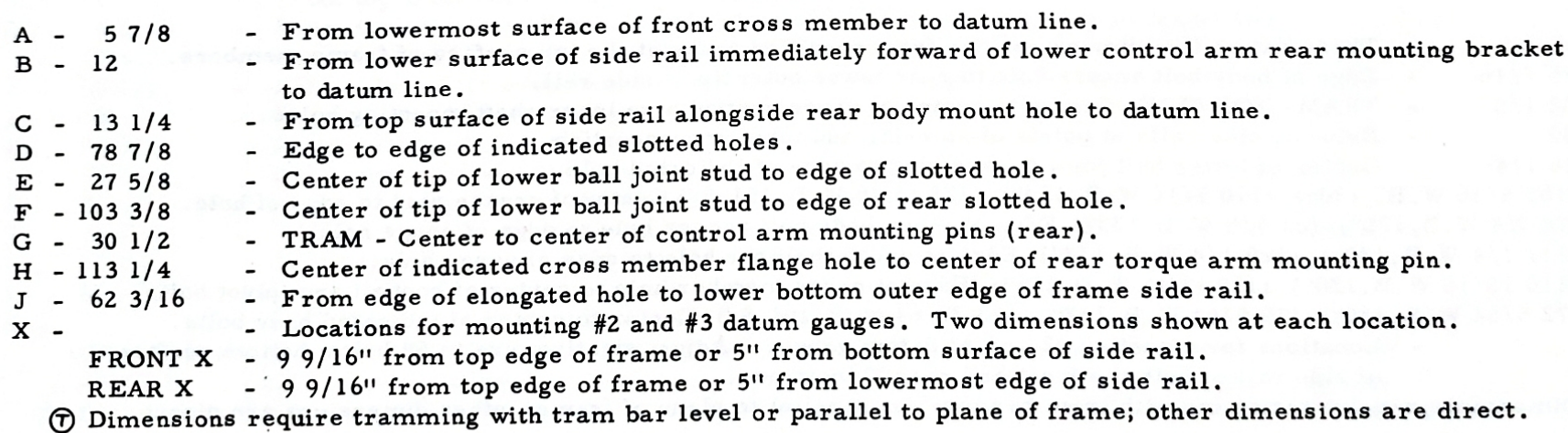
REAR X - $9 \frac{3}{4}$ " from top surface of side rail or 5" from bottom surface of side rail to datum line.

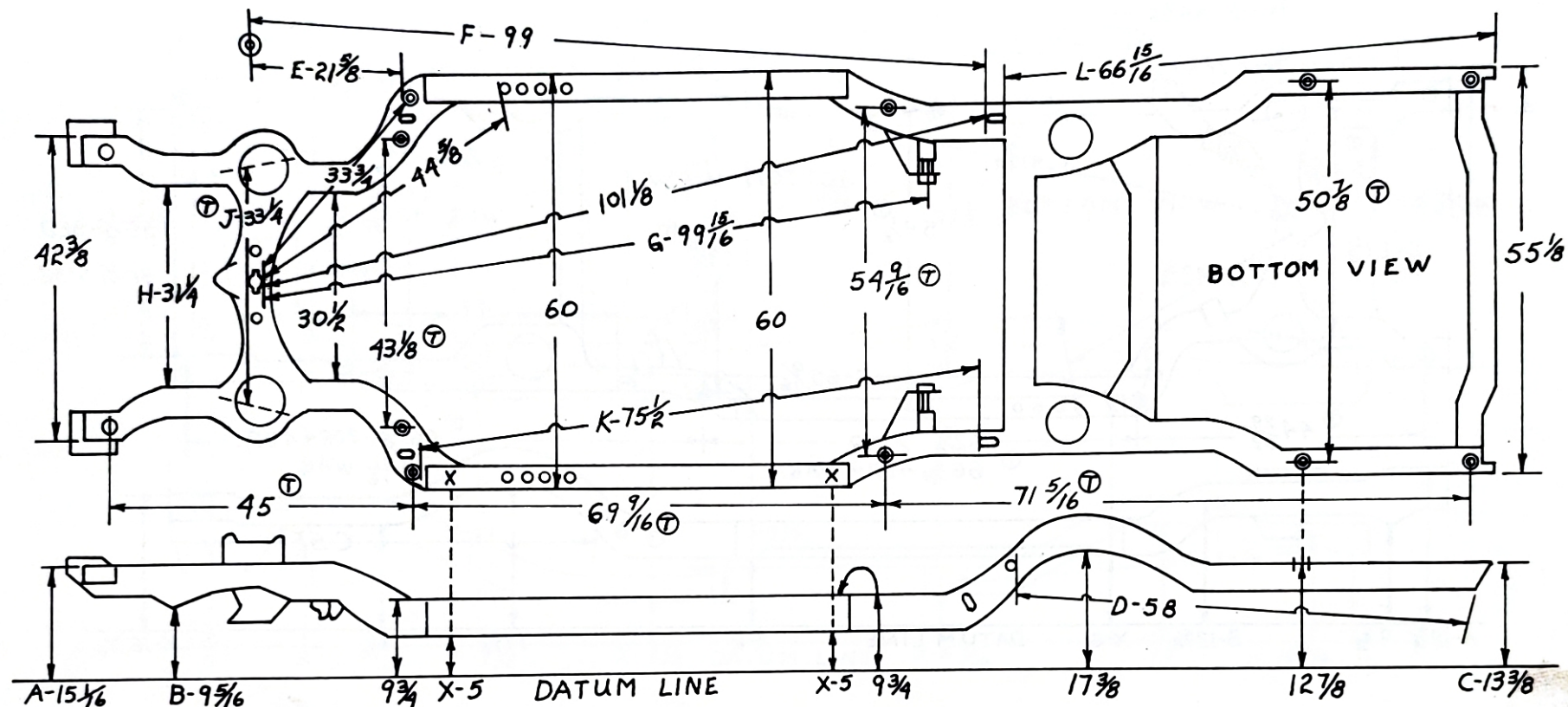
⑦ Dimensions require tramping with tram bar level to datum line; other dimensions are direct point to point.



- A - - These datum line dimensions are from specified areas at the top surface of frame members.
- B - 75 $\frac{7}{16}$ - Edge of body bolt access hole to rear lower outer tip of side rail.
- C - 32 $\frac{1}{8}$ - TRAM- TOP SIDE, Center to center of upper control arm inner shaft mounting holes.
- D - 30 - Between side rails at points of steering and idler arm mounting.
- E - 26 $\frac{1}{4}$ - Center of lower ball joint grease plug to edge of indicated hole.
- F - (107 $\frac{5}{16}$ W.B. 130") (110 $\frac{5}{16}$ W.B. 133") (128 $\frac{13}{16}$ W.B. 151.5") Center of grease plug to edge of hole.
- G - (78 $\frac{7}{8}$ W.B. 130") (81 $\frac{7}{8}$ W.B. 133") Edge of inner body bolt access hole to edge of gauge hole.
- H - (117 $\frac{1}{4}$ W.B. 130") (120 $\frac{1}{4}$ W.B. 133") Edge of cross member hole to edge of gauge hole.
- J - (116 $\frac{13}{16}$ W.B. 130") (119 $\frac{13}{16}$ W.B. 133") Edge of cross member hole to center of control arm pivot bolt.
- K - (72 $\frac{5}{64}$ W.B. 130") (75 $\frac{5}{64}$ W.B. 133") (93 $\frac{37}{64}$ W.B. 151.5") Center to center of indicated body bolts.
- X - - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins to 5" below bottom surface of side rail at both the front and rear X locations.

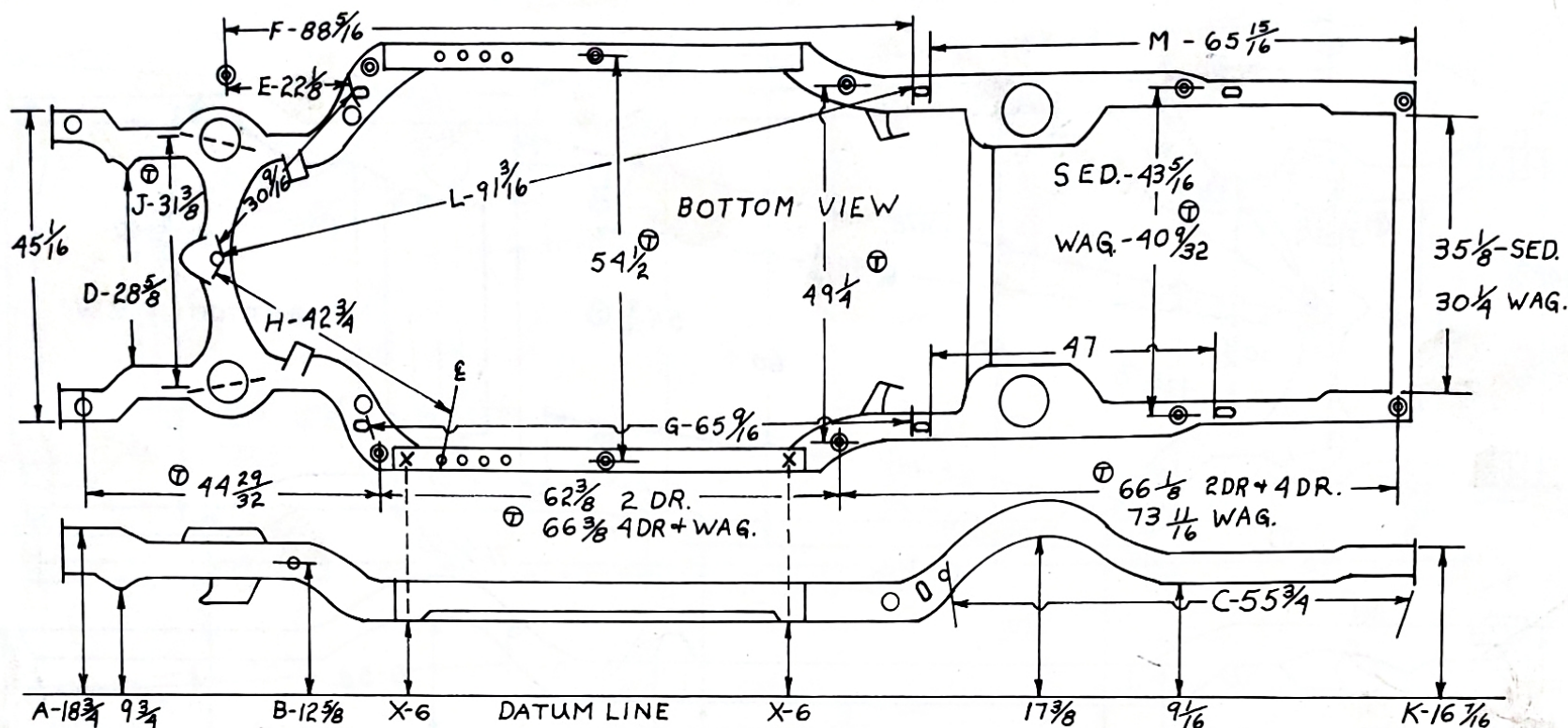
Ⓣ Dimensions require tramming with tram bar level or parallel to plane of frame; other dimensions are direct.





- A - 15 1/16 - Top surface of side rail (not bumper and sheet metal support bracket) to datum line.
 B - 9 5/16 - At lowest point on side rail at sway bar mounting to datum line.
 C - 13 3/8 - Top surface (at rear tip) of side rail to datum line.
 D - 58 - Edge of flanged tie down hole to rear lower bottom edge of side rail.
 E - 21 5/8 - Center of tip of lower ball joint stud to edge of outer body bolt access hole.
 F - 99 - Center of tip of lower ball joint stud to edge of slotted hole.
 G - 99 15/16 - Edge of cross member hole to center of rear axle torque arm pivot bolt head.
 H - 31 1/4 - Between lower from steering gear mounting bolt to idler arm mounting surface.
 J - 33 1/4 - TRAM - TOP SIDE - Between upper control arm inner shaft mounting brackets at FRONT shim area.
 K - 75 1/2 - Edge of outer body bolt access hole to front edge of slotted hole.
 L - 66 15/16 - Rear edge of slotted hole to lower outer bottom edge of side rail.
 X - - Locations for mounting #2 and #3 datum gauges. Two dimensions are shown at each X area.
 FRONT X - Measure 9 3/4" from top edge of frame or 5" from bottom surface of side rail.
 REAR X - Measure 9 3/4" from top edge of frame or 5" from lowermost edge of side rail.

Ⓣ Dimensions require tramming with tram bar level or parallel to plane of frame; other dimensions are direct.



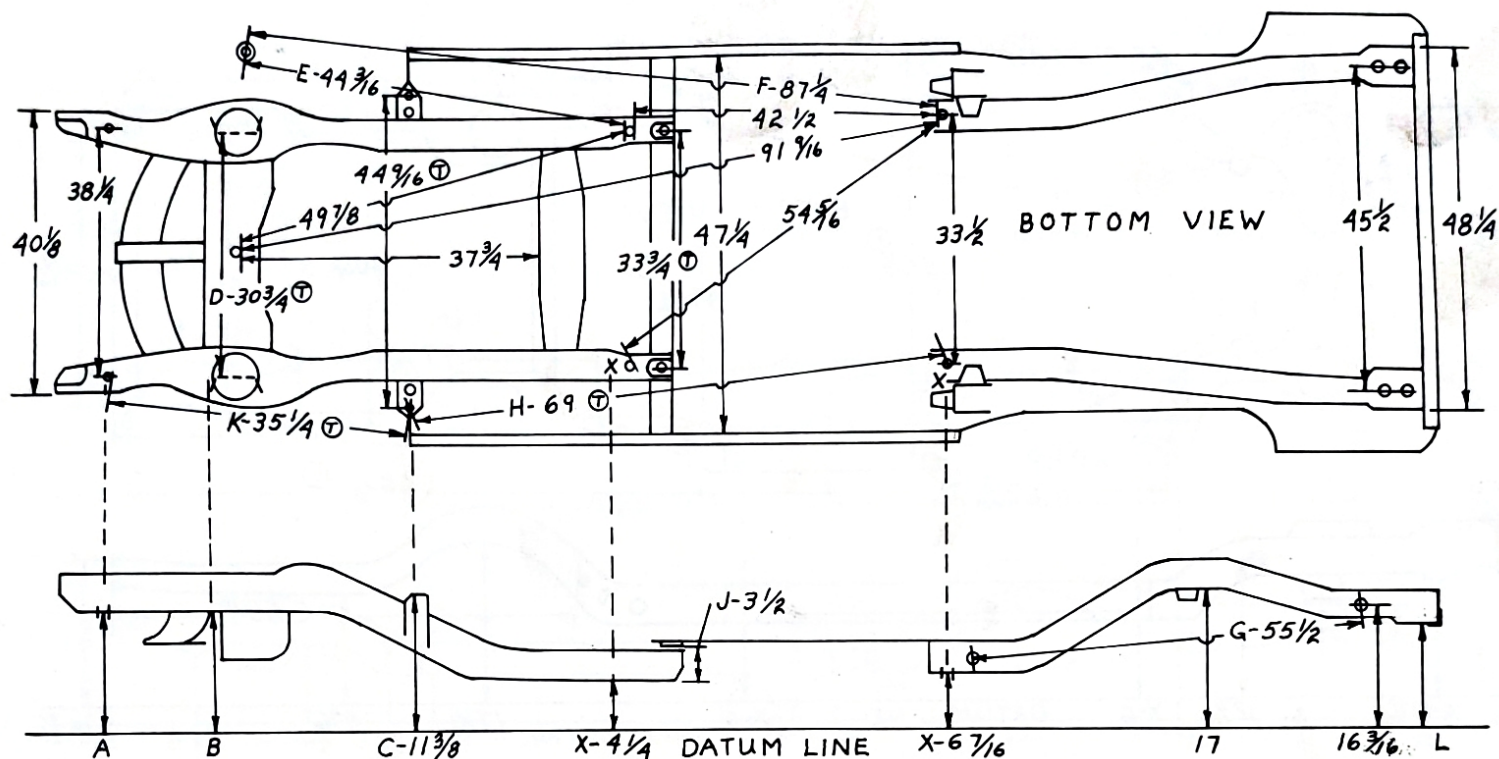
- A - 18 3/4 - From top of rail alongside radiator support bracket, to datum line.
- B - 12 5/8 - From center of flanged tie down hole to datum line.
- C - (55 3/4 - 2 DR & 4 DR) (63 1/8 - Sta.Wag.) - Edge of tie down flanged hole to lower bottom outer flanged edge of side rail.
- D - 28 5/8 - Between side rails at lower steering gear bolt to idler arm mounting surface.
- E - 22 1/8 - Center of lower ball joint grease fitting, to edge of hole.
- F - (88 5/16-2DR) (92 5/16 - 4 DR & Sta.Wag.) - Center of ball joint grease fitting, to edge of hole.
- G - (65 9/16-2Dr) (69 5/8 - 4 DR & Sta.Wag.) - Edge to edge of indicated holes.
- H - 42 3/4 - Edge of cross member hole to center of indicated hole.
- J - 31 3/8 - TRAM - TOP SIDE - Between upper control arm inner shaft seats at front shim contact surface.
- K - 16 7/16 - Rear top surface of frame rail (at body bolt area), to datum line.
- L - (91 3/16-2 DR) (94 15/16 - 4 DR & Sta.Wag.) - Edge to edge of indicated holes.
- M - (65 15/16 - 2 DR & 4 DR) (73 - Sta.Wag.) - Edge of indicated hole to lower bottom outer edge of side rail.
- X - - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins to 6" below the lowermost surface of the frame side rail at the locations indicated.

⑦ Dimensions require tramming with tram bar level or parallel to plane of body; other dimensions are direct.

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1974 Chevrolet Chevelle

2 DR 112" W.B.
4 DR 116" W.B.
Sta.Wag. 116" W.B.

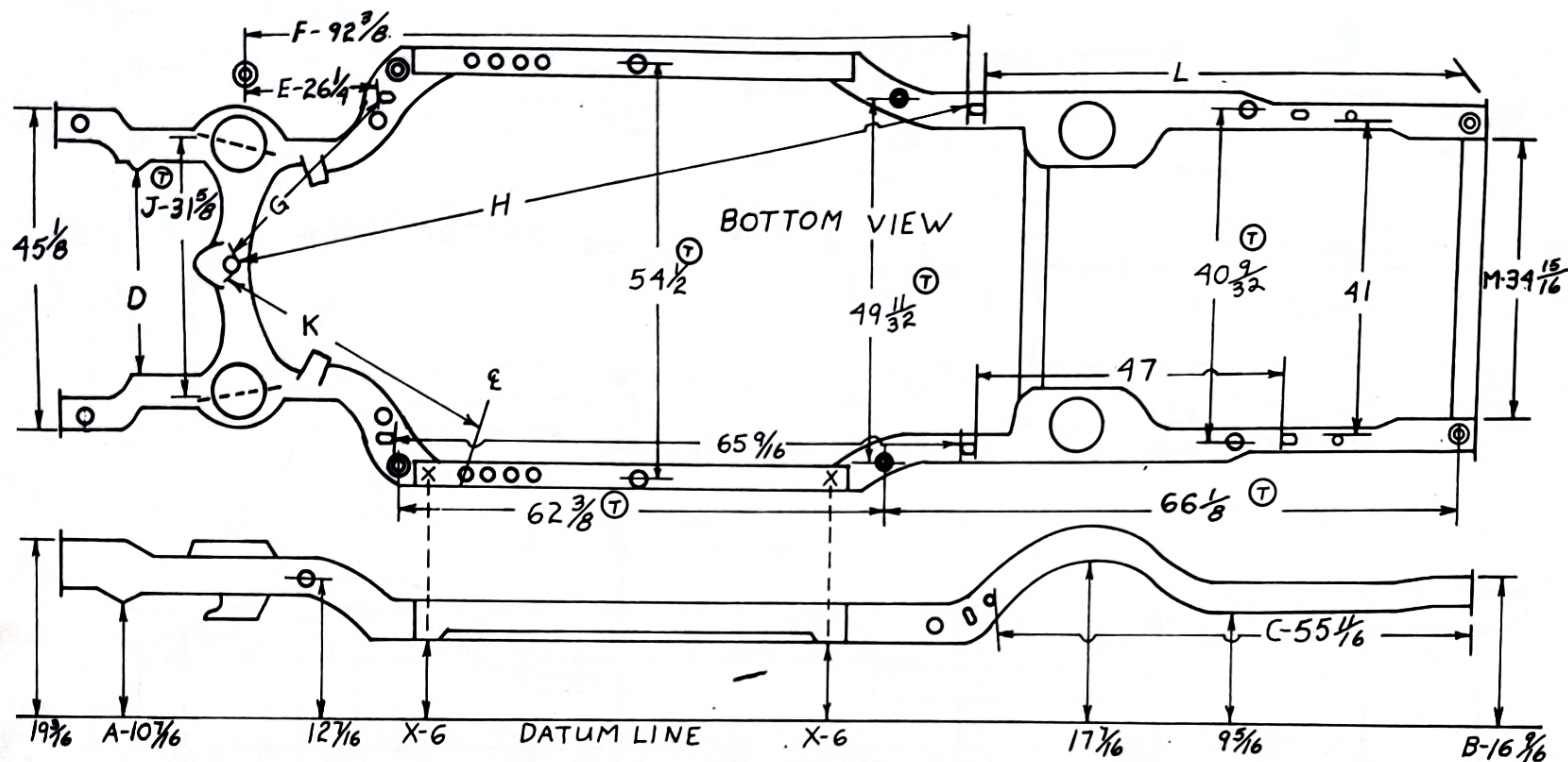


- | | |
|-------------|--|
| A - 10 | - From bottom surface of side rail alongside gauge hole, to datum line. |
| B - 10 1/8 | - From bottom surface of side rail just forward of spring pocket, to datum line. |
| C - 11 3/8 | - Bottom surface of #1 body support bracket (alongside gauge hole), to datum line. |
| D - 30 3/4 | - TRAM - TOP SIDE - Between upper control arm inner shaft seats (at shim contact area). |
| E - 44 3/16 | - Center of lower ball joint grease fitting to edge of hole. |
| F - 87 1/4 | - Center of lower ball joint grease fitting to edge of hole. |
| G - 55 1/2 | - Center of rear spring front bolt, to center of rear spring shackle top pin. |
| H - 69 | - TRAM - Center of gauge hole alongside #1 body bolt, to center of gauge hole at rear sub frame. |
| J - 3 1/2 | - From bottom surface of body floor reinforcement at bolt area, to bottom edge of side rail. |
| K - 35 1/4 | - TRAM - Rear edge of front gauge hole, to center of gauge hole alongside #1 body bolt. |
| L - 14 1/4 | - From end of side rail (lower surface) just forward of X member flange, to datum line. |
| X - | - Locations for mounting #2 and #3 datum gauges. |
| FRONT X | - Adjust sighting pin 4 1/4" below bottom outside edge of side rail. |
| REAR X | - Adjust sighting pin 6 7/16" below bottom surface of sub frame at gauge hole area. |

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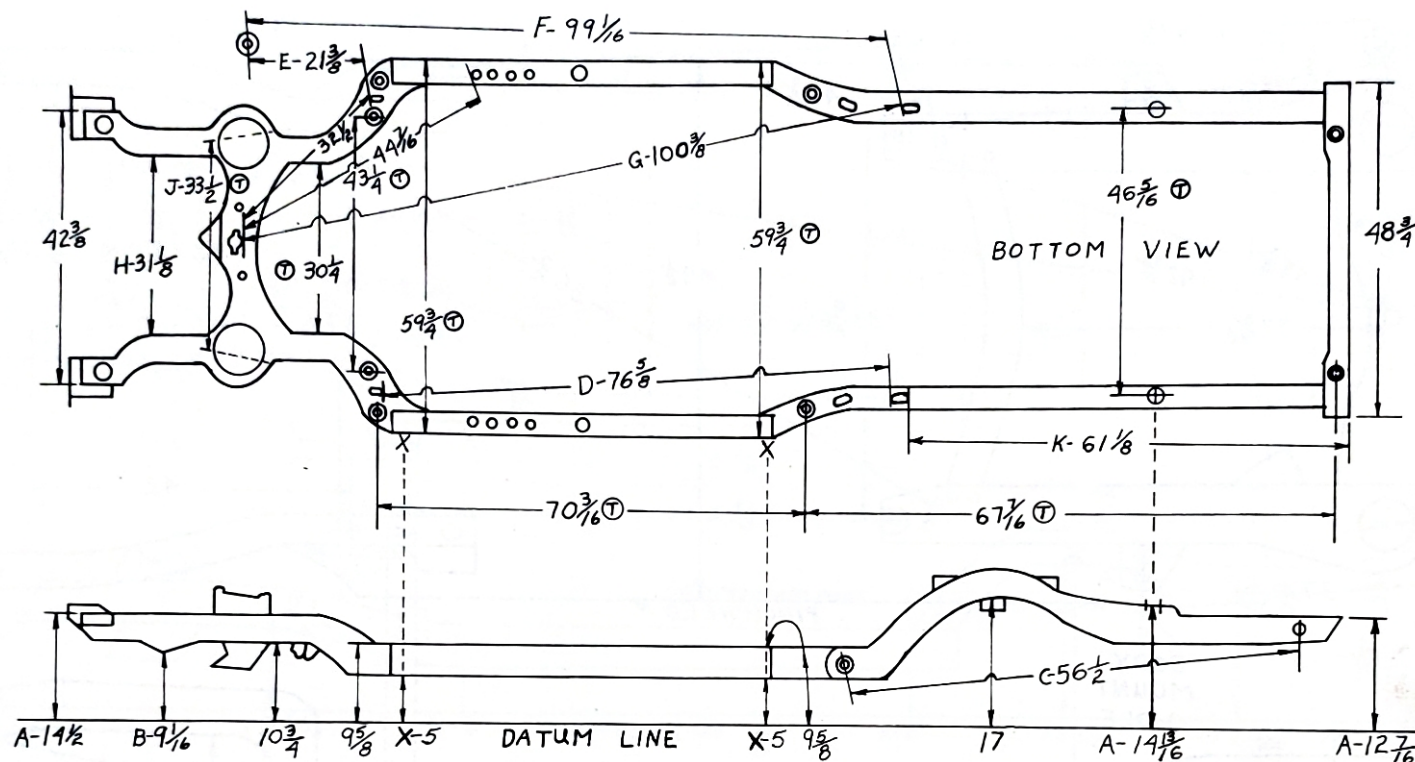
1974 Chevrolet Nova

111" W.B.



- | | |
|--------------|---|
| A - 10 7/16 | - From lowest point on side rail at sway bar mounting area to datum line. |
| B - 16 9/16 | - From rear top edge of side rail to datum line. |
| C - 55 11/16 | - From edge of flanged tie down hole to rear lower outer bottom edge of side rail flange. |
| D - 28 1/4 | - Between side rails at lower steering gear mounting bolt surface to idler arm mounting surface. |
| E - 26 1/4 | - Center of lower ball joint grease fitting to edge of gauge hole. |
| F - 92 3/8 | - Center of lower ball joint grease fitting to edge of gauge hole. |
| G - 33 1/2 | - Edge to edge of indicated holes. |
| H - 95 | - Edge to edge of indicated holes. |
| J - 31 5/8 | - TRAM - Between upper control arm inner shaft seats at front shim contact surface. |
| K - 46 1/8 | - From edge of cross member hole to center of indicated side rail hole. |
| L - 65 7/8 | - Edge of gauge hole to lower bottom outer edge of side rail flange. |
| M - 34 15/16 | - Between side rails at LOWER inner surfaces. |
| X - | - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins to 6" below lowermost surface of frame side rail at both locations. |

Ⓣ Dimensions require tramming with tram bar adjusted parallel to plane of frame; other dimensions are direct.



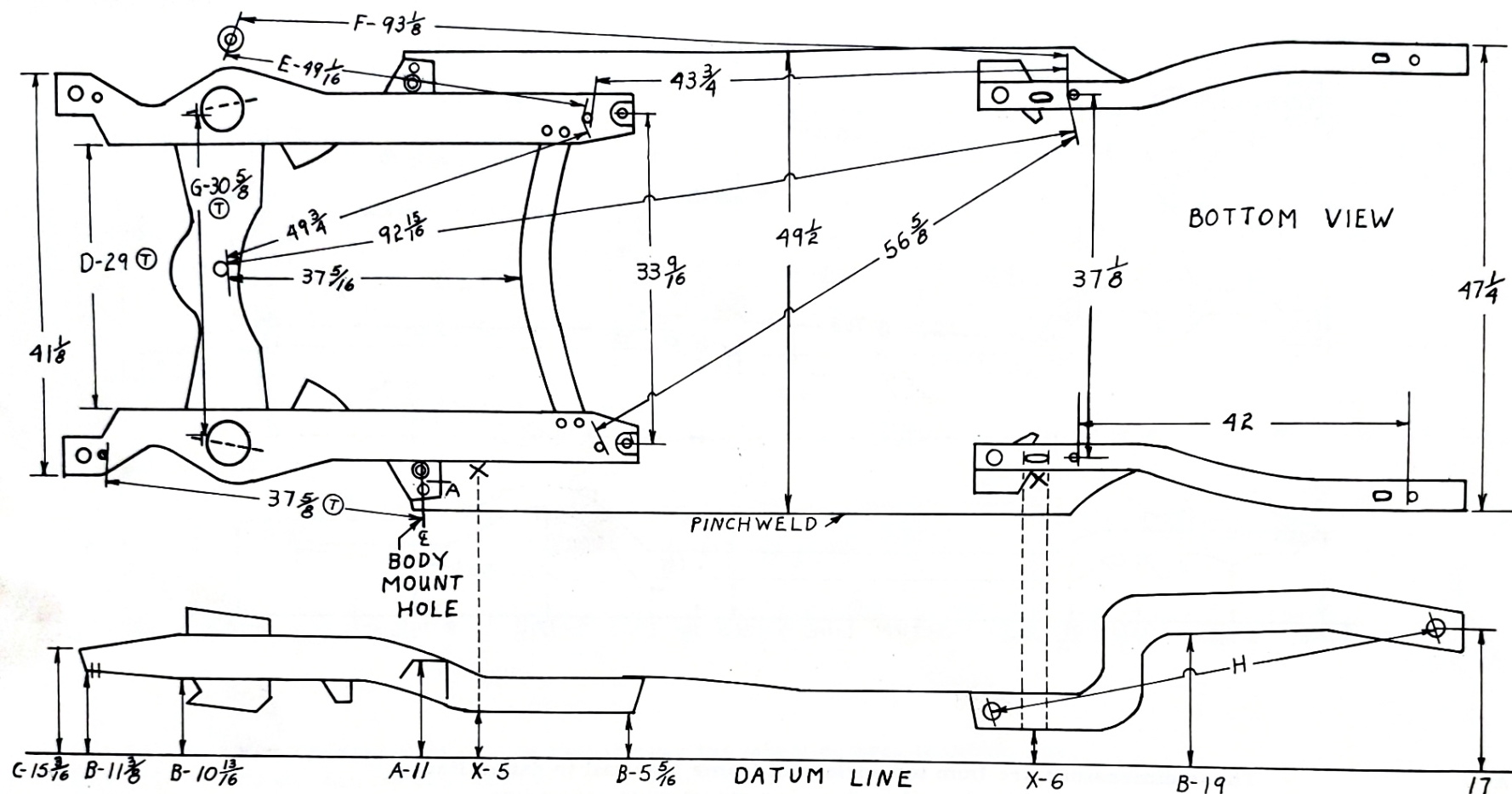
- A - These dimensions are from top surface of frame side rail to datum line.
 B - 9 1/16 - From lowest point of side rail at sway bar mounting to datum line.
 C - 56 1/2 - From center of front shackle bolt to center of rear shackle TOP pin.
 D - 76 5/8 - From edge of elongated hole to edge of rear elongated hole.
 E - 21 3/8 - From center of tip of lower ball joint stud to edge of elongated hole.
 F - 99 1/16 - From center of tip of lower ball joint stud to edge of elongated hole.
 G - 100 3/8 - From edge of indicated cross member hole to edge of elongated hole.
 H - 31 1/8 - From lower steering gear mounting to idler arm mounting surface.
 J - 33 1/2 - TRAM - TOP SIDE - Between upper control arm mounting brackets at FRONT shim contact area.
 K - 61 1/8 - From edge of elongated hole to lower bottom outer edge of side rail.
 X - Locations for mounting #2 and #3 datum gauges. Two dimensions given at each location.
 FRONT X - 9 5/8" from top surface of side rail or 5" from bottom surface of side rail to datum line.
 REAR X - 9 5/8" from top surface of side rail or 5" from bottom surface of side rail to datum line.

⑦ Dimensions require trammig with tram bar level or parallel to plane of body; other dimensions are direct.

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1974 Chevrolet

Brookwood Wagon 125" W.B.
 Kingswood Wagon 125" W.B.
 Townsman Wagon 125" W.B.

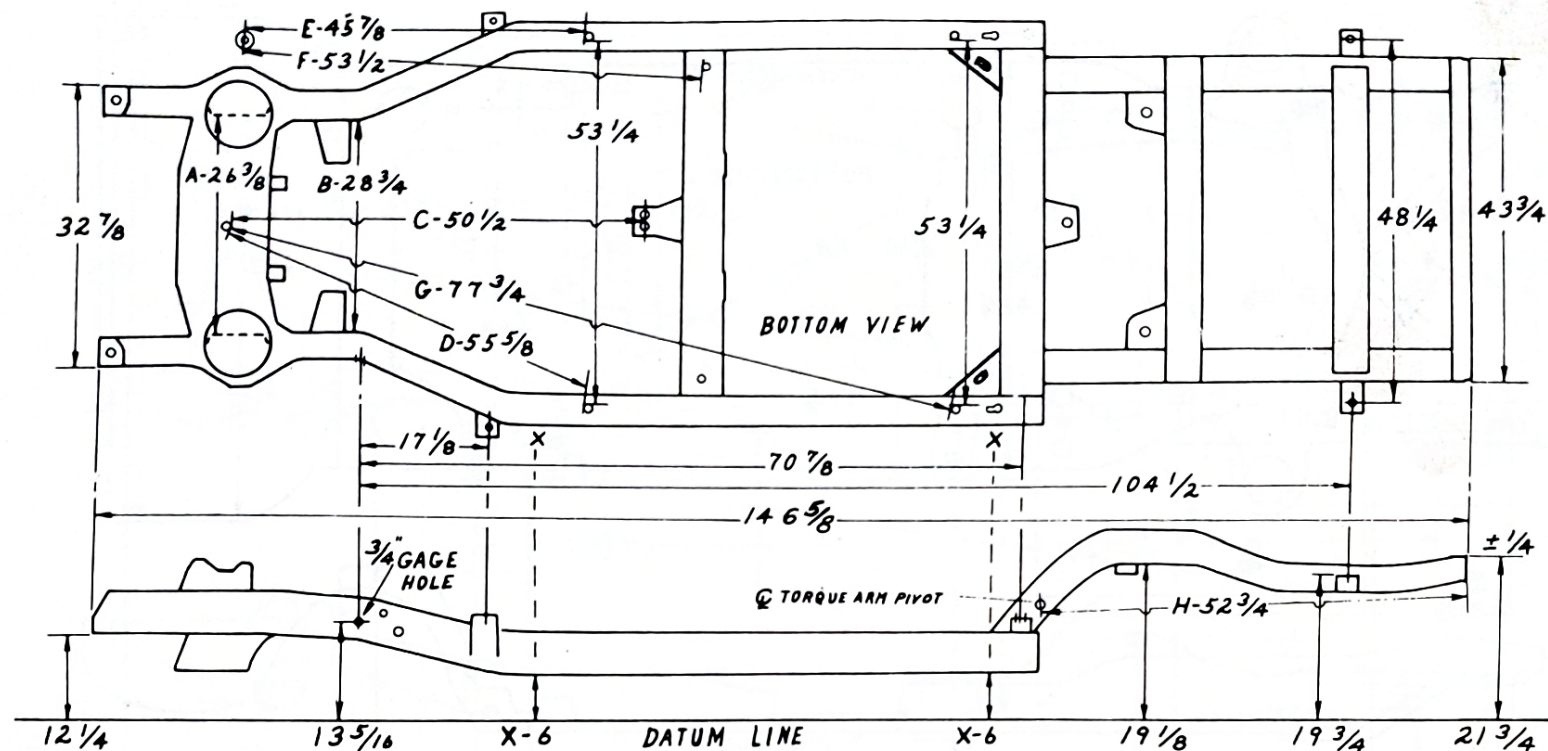


- | | |
|----------------------|--|
| A - 11 | - Bottom surface of body mount bracket (between body mount hole and gauge hole), to datum line. |
| B - | - Bottom surface of side rails at indicated points, to datum line. |
| C - $15\frac{3}{16}$ | - Top edge (at the tip) of front side rail, to datum line. |
| D - 29 | - Between steering gear lower bolt and idler arm mount. |
| E - $49\frac{1}{16}$ | - Center of lower ball joint grease plug to edge of indicated hole. |
| F - $93\frac{1}{8}$ | - Center of lower ball joint grease plug to edge of indicated hole. |
| G - $30\frac{5}{8}$ | - TRAM - Between upper control arm support brackets at FRONT shim area. |
| H - $55\frac{1}{2}$ | - Center to center of front and rear spring shackle bolts (rear top shackle bolt). |
| X - | - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins: FRONT - 5", REAR - 6", below lowermost surface of side rails at indicated X points. |

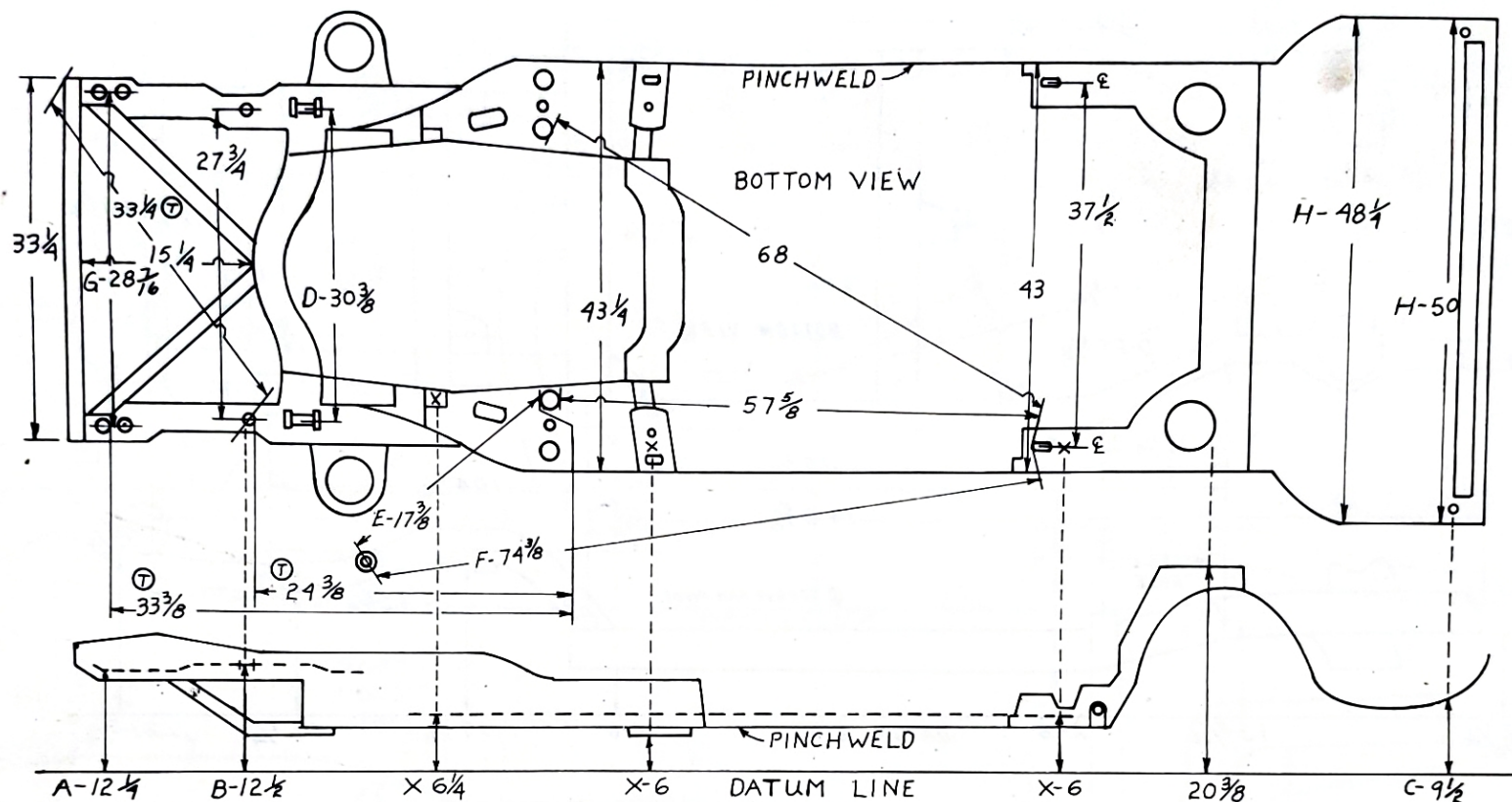
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1974 Chevrolet Camaro

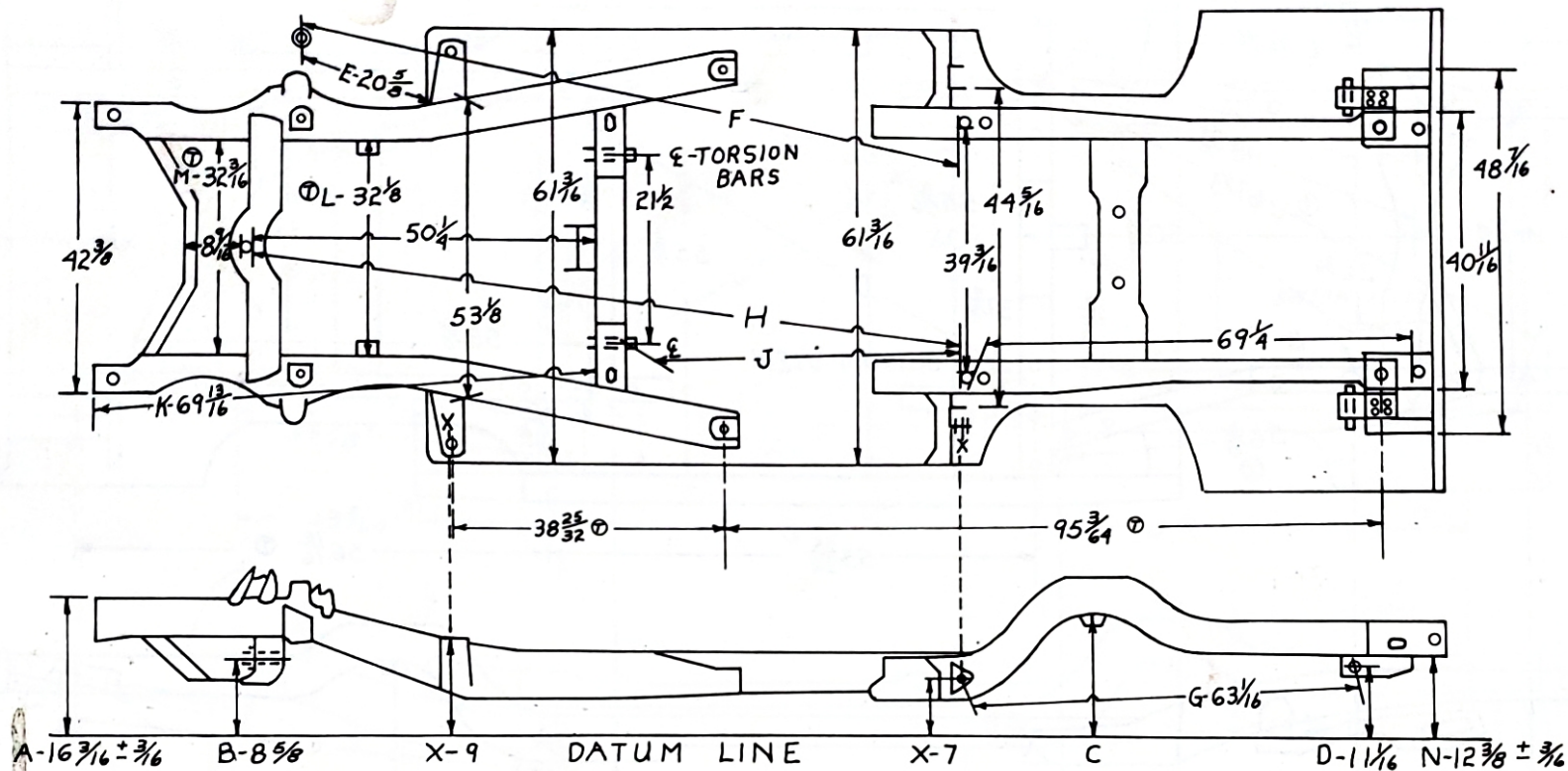
108" W.B.



- A - 26 3/8 - Between upper control arm inner shaft support brackets (at shim contact areas).
- B - 28 3/4 - Between side rails at a point just to rear of steering gear mounting.
- C - 50 1/2 - Edge of hole under suspension member, to center of holes at rear engine support.
- D - 55 5/8 - Edge of hole under suspension member, to edge of hole at side rail.
- E - 45 7/8 - Center of tip of lower ball joint stud, to edge of hole at side rail.
- F - 53 1/2 - Center of tip of lower ball joint stud, to edge of hole at #2 cross member.
- G - 77 3/4 - Edge of hole under suspension member, to edge of hole at side rail.
- H - 52 3/4 - Center of rear suspension torque arm pivot bolt, to rear lower outer edge of side rail.
- X - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins to exactly 6" below lowermost surface of frame side rail at both X locations.



- A - $12\frac{1}{4}$ - From lower surface of front stub frame rail to datum line.
- B - $12\frac{1}{2}$ - From lower surface of front stub frame rail alongside indicated gauge hole to datum line.
- C - $9\frac{1}{2}$ - Bottom edge of pinch weld at sheet metal screw area (rear bumper lower panel) to datum line.
- D - $30\frac{3}{8}$ - Center to center of front upper control arm pivot bolts.
- E - $17\frac{3}{8}$ - From center of lower ball joint grease plug to edge of indicated hole.
- F - $74\frac{3}{8}$ - From center of lower ball joint grease plug to edge of indicated slotted hole.
- G - $28\frac{7}{16}$ - Center to center of side rail bolt holes.
- H - (48 1/4) (50) - These two dimensions are outside to outside of pinch weld.
- X - 6 - Locations for mounting #2 and #3 datum gauges.
- FRONT X - Adjust #2 datum gauge to 6" below front stub frame rear cross member at indicated location.
- REAR X - Adjust #3 datum gauge to 6" below rear stub frame side rail directly behind slotted hole.
- X - $6\frac{1}{4}$ - This dimensions is an optional location for #2 datum gauge.
- Ⓣ Dimensions require tramming with tram bar level or parallel to plane of frame; other dimensions are direct.

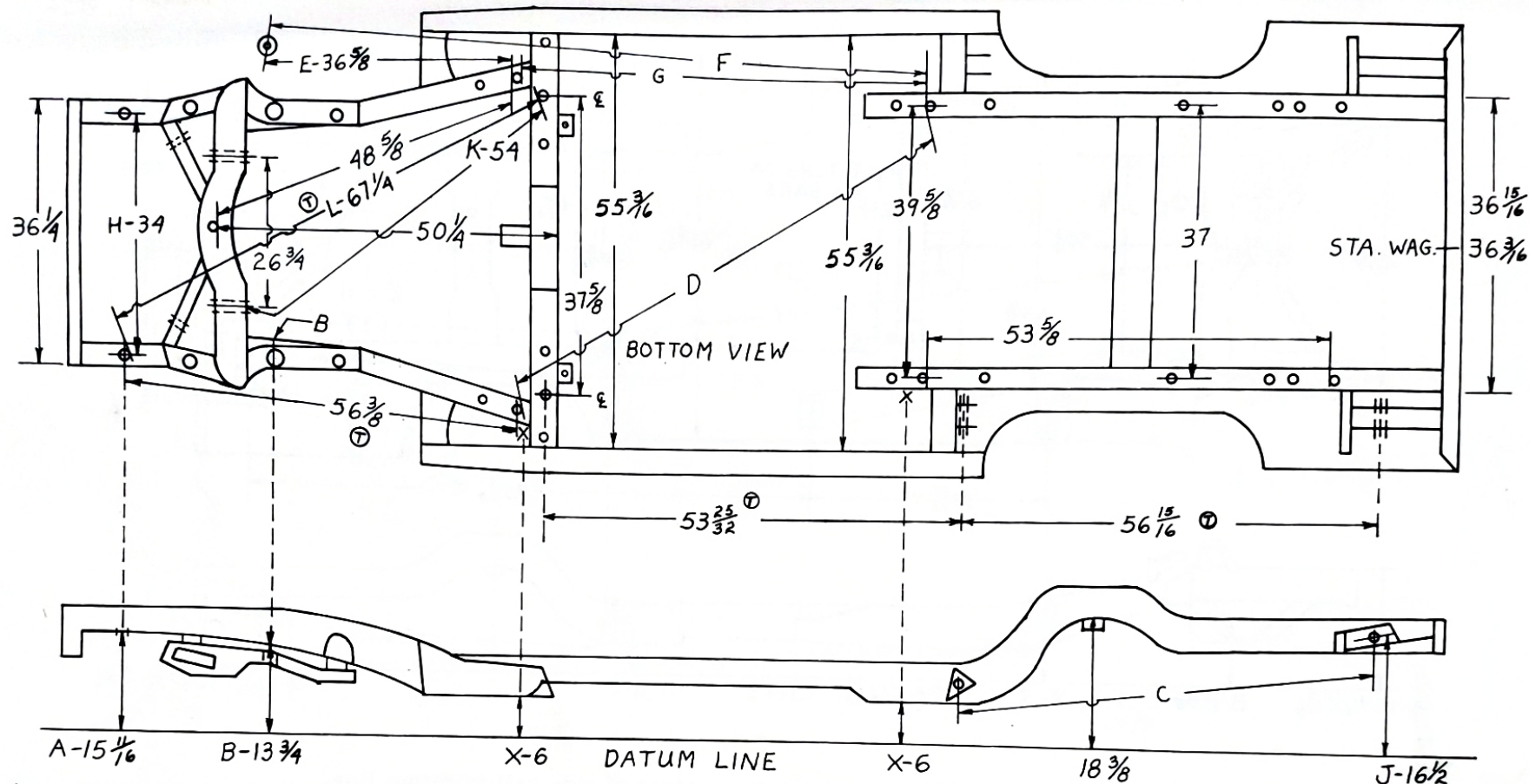


- A - $(16 \frac{3}{16} \pm \frac{3}{16}$ - Sedans) $(15 \frac{1}{8}$ -Sta.Wag.) - From top surface of side rail to datum line.
- B - $8 \frac{5}{8}$ - Center of tip of lower control arm pivot shaft, to datum line.
- C - $(17 \frac{1}{2} \pm \frac{3}{16}$ -Sedans) $(19 \frac{3}{8}$ -Sta.Wag.) - Bottom of side rail alongside rubber bumper to datum line.
- D - $(11 \frac{1}{16} \pm \frac{3}{16}$ -Sedans) $(13 \frac{3}{8}$ -Sta.Wag.) - From center of rear shackle bottom pin to datum line.
- E - $20 \frac{5}{8}$ - Center of lower ball joint grease plug to forward edge of outrigger at junction of side rail.
- F - $(99 \frac{1}{4}$ - Sedans) $(98 \frac{3}{4}$ - Sta.Wag.) - Center of lower ball joint grease plug to edge of hole.
- G - $63 \frac{1}{16}$ - Center of rear spring front bolt to center of rear spring shackle bottom pin.
- H - $107 \frac{5}{8}$ - Edge to edge of indicated holes.
- J - $52 \frac{1}{4}$ - From rear edge of cross member beneath center of torsion bar to edge of indicated hole.
- K - $69 \frac{13}{16}$ - Front lower outer edge of side rail to front flange edge of cross member.
- L - $32 \frac{1}{8}$ - TRAM - Between side rails immediately below upper control arm rear mounting brackets.
- M - $32 \frac{3}{16}$ - TRAM - Between side rails at sway bar mountings.
- N - $(12 \frac{3}{8} \pm \frac{3}{16}$ -Sedans) $(15$ -Sta.Wag.) - Bottom surface of side rail to datum line.
- X - - Locations for mounting #2 and #3 datum gauges. FRONT X is from bottom surface of body support outrigger. REAR X is from center of rear spring front bolt.

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1974 Chrysler

Station Wagon	124" W.B.
Newport	124" W.B.
New Yorker	124" W.B.
Imperial	124" W.B.



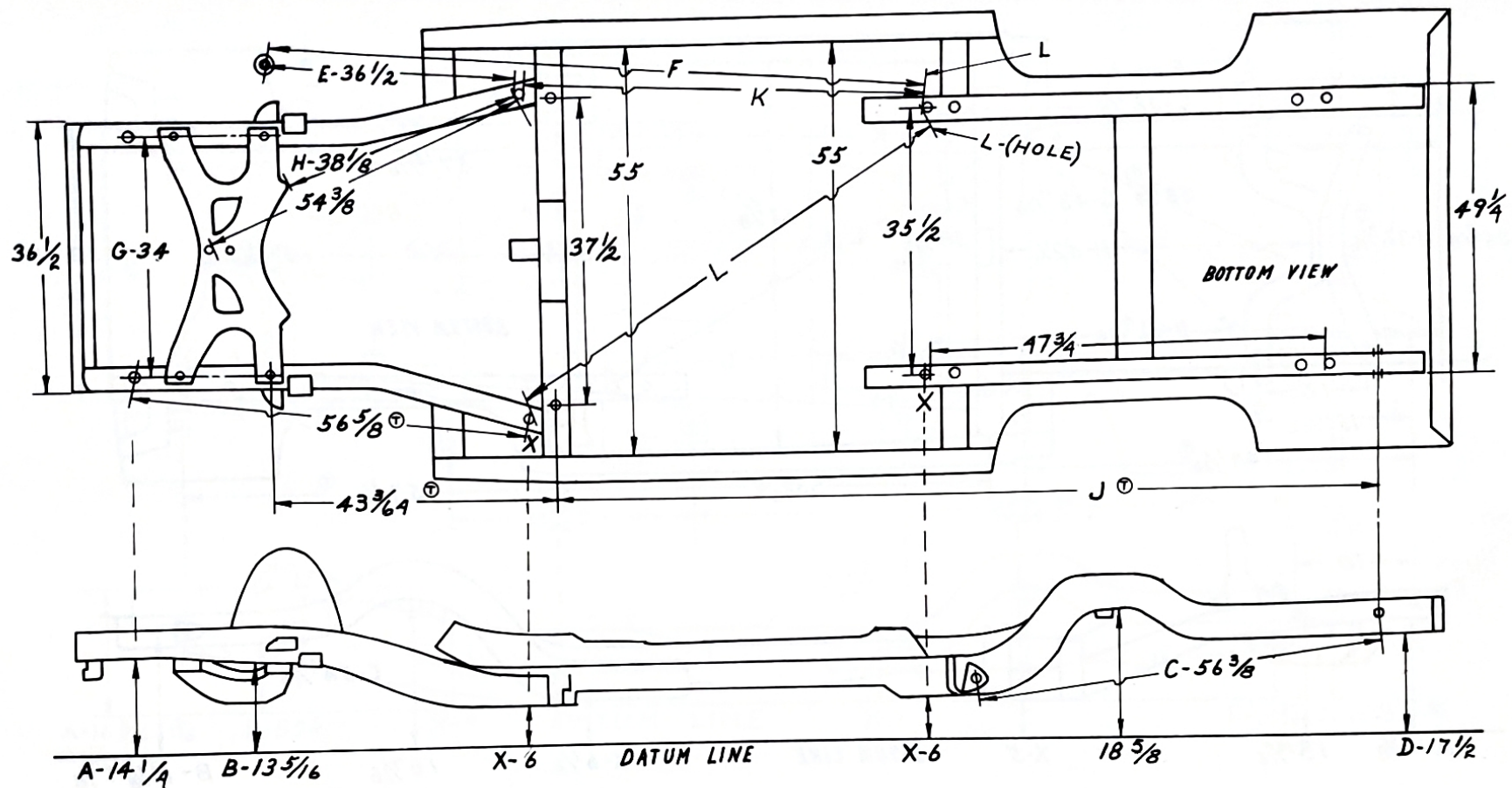
- A - 15 11/16 - Bottom surface of side rail at gauge hole area, to datum line.
 B - 13 3/4 - Bottom surface of side rail (not K frame) immediately behind lower control arm to datum line.
 C - (56 1/2 - Sedans) (57 1/4 -Sta. Wag.) - Center of rear spring front bolt to center of rear spring shackle top pin.
 D - (64 1/16 W.B. 115") (65 7/8 W.B. 118") - From edge to edge of indicated holes.
 E - 36 5/8 - Center of lower ball joint grease plug, to edge of hole.
 F - (86 7/8 W.B. 115") (88 7/8 W.B. 118") - Center of lower ball joint grease plug, to edge of hole.
 G - (48 3/4 W.B. 115") (51 1/4 W.B. 118") - From edge to edge of indicated holes.
 H - 34 - Center to center of forward gauge holes.
 J - (16 1/2 - Sedans) (15 5/8 -Sta. Wag.) - Center of rear spring shackle top pin, to datum line.
 K - 54 - From center line of torsion bar at rear edge of cross member to edge of indicated hole.
 L - 67 1/4 - TRAM - Edge to edge of indicated hole.
 X - - Locations for mounting #2 and #3 datum gauges. Locate sighting pins exactly 6" below the bottom surface of the sub frame rail at the gauge hole areas.
- ⑦ Dimensions require tramming with tram bar level or parallel to plane of frame; other dimensions are direct.

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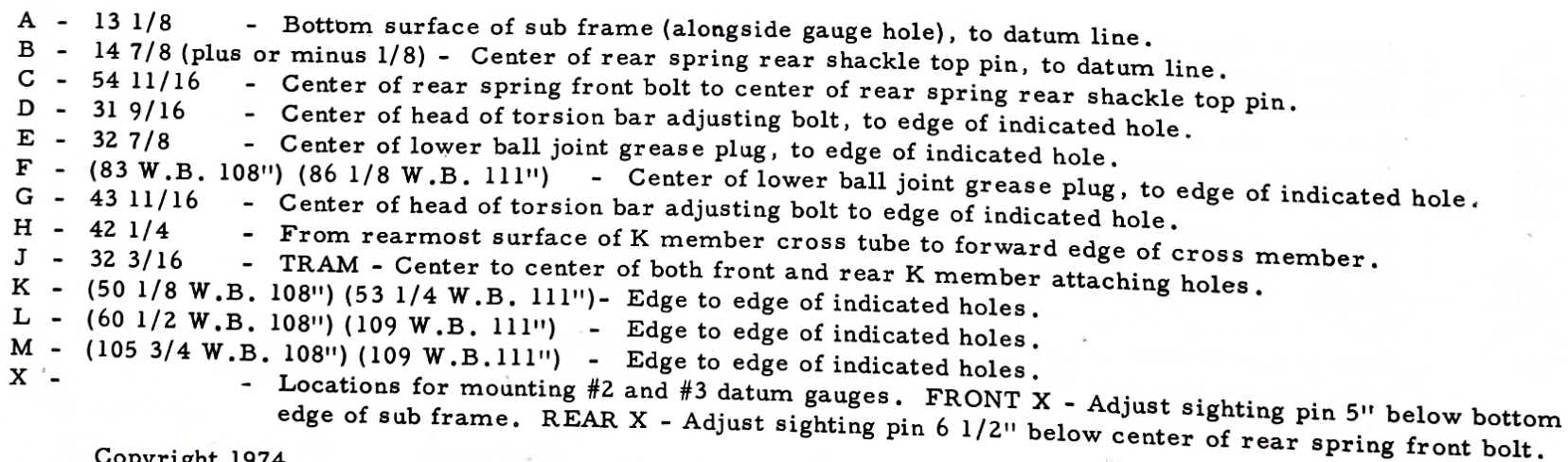
1974 Dodge

4 DR & Coronet Wagon
 Charger 2DR

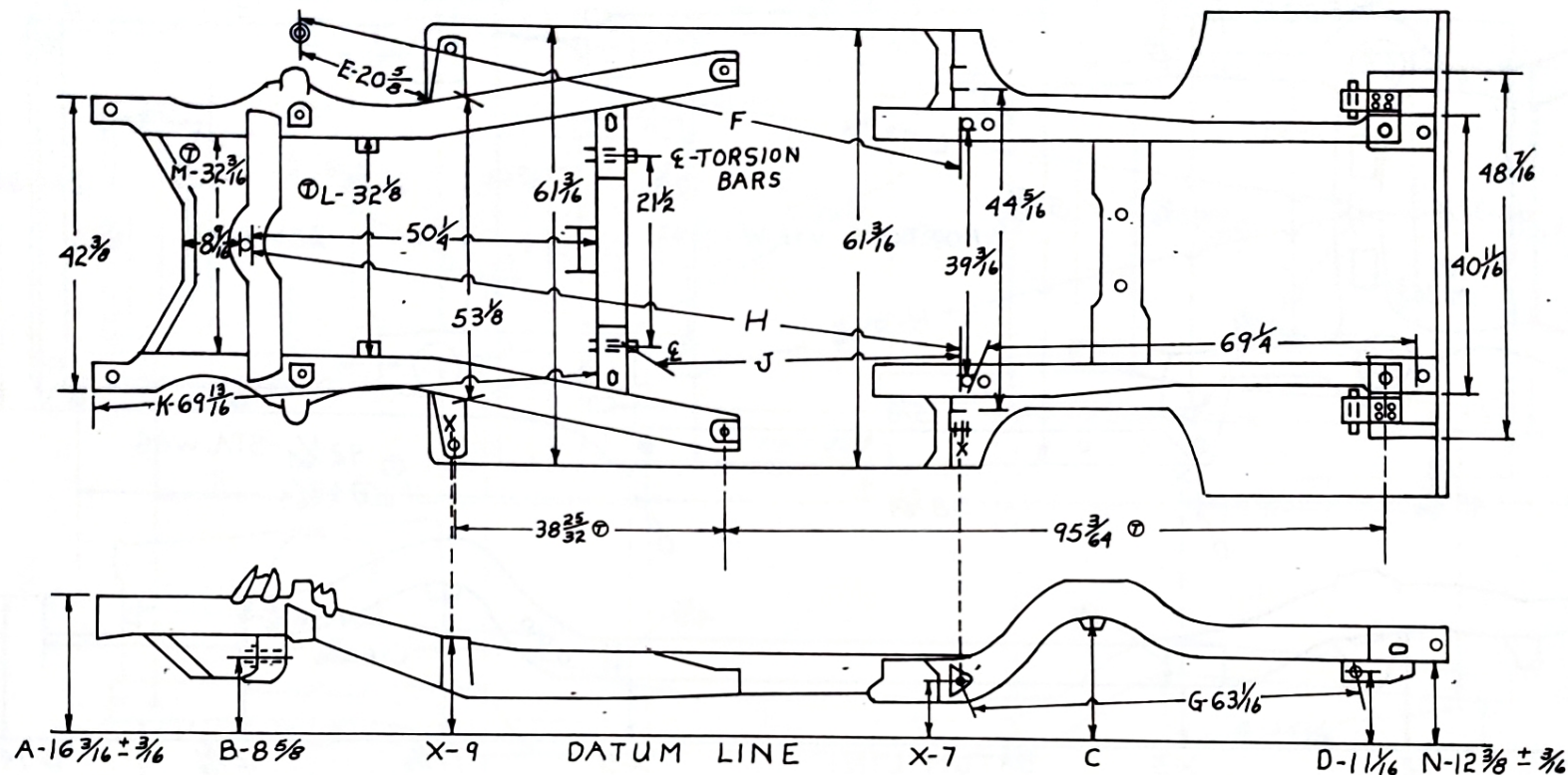
118" W.B.
 115" W.B.



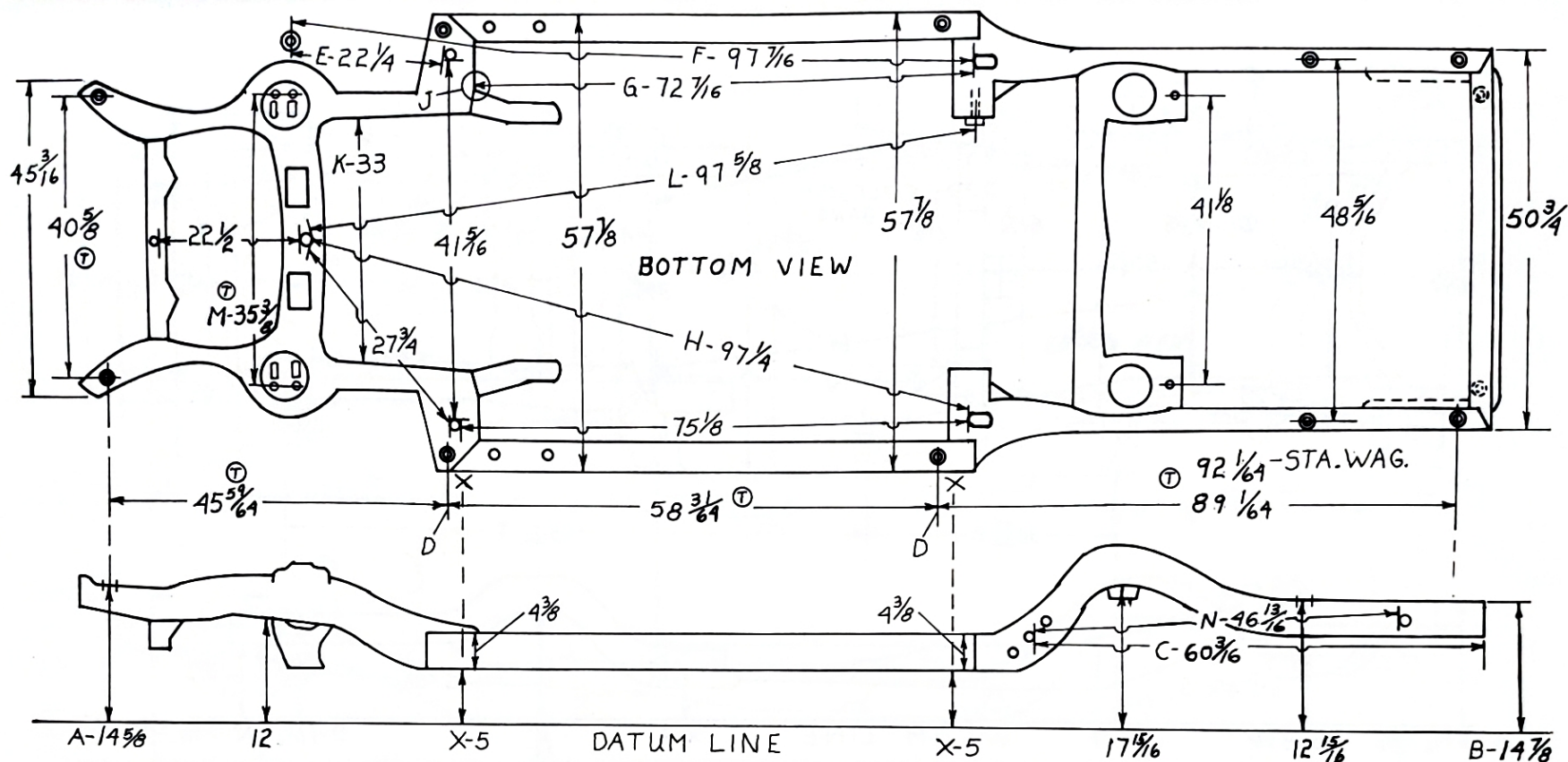
- | | |
|--------------|--|
| A - 14 1/4 | - Bottom surface of side rail at gauge hole area to datum line. |
| B - 13 5/16 | - Bottom surface of side rail at cross member rear attachment to datum line. |
| C - 56 3/8 | - Center of rear spring front bolt to center of rear spring rear shackle top pin. |
| D - 17 1/2 | - Bottom surface of side rail, to datum line. |
| E - 36 1/2 | - Center of grease plug in lower ball joint, to edge of hole. |
| F - 87 1/2 | - Center of grease plug in lower ball joint, to edge of hole. |
| G - 34 | - Center to center of forward gauge holes, also cross member attaching holes. |
| H - 38 1/8 | - From rearmost edge of cross member to edge of side rail gauge hole. |
| J - 99 19/32 | - TRAM - Center of gauge hole to center of rear spring shackle top pin hole. |
| K - 50 5/16 | - Direct from edge of hole to edge of hole. |
| L - 63 3/4 | - Edge of hole to edge of hole. (L-hole, all dimensions shown to this hole are to forward hole.) |
| X - | - Locations for mounting #2 and #3 datum gauges. Locate sighting pins 6" below the bottom surface of the sub frame rail at the gauge hole areas. |



Sport	108" W.B.
Swinger	111" W.B.



- A - (16 3/16 - Sedans) (15 1/8 -Sta.Wag.) - From top surface of side rail to datum line.
- B - 8 5/8 - Center of tip of lower control arm pivot shaft, to datum line.
- C - (17 1/2 - Sedans) (19 3/8 -Sta.Wag.) - Bottom of side rail alongside rubber bumper to datum line.
- D - (11 1/16- Sedans) (13 3/8 -Sta.Wag.) - From center of rear shackle bottom pin to datum line.
- E - 20 5/8 - Center of lower ball joint grease plug to forward edge of outrigger at junction of side rail.
- F - (99 3/8- Sedans) (98 3/4 -Sta.Wag.) - Center of lower ball joint grease plug to edge of hole.
- G - 63 1/16 - Center of rear spring front bolt to center of rear spring shackle bottom pin.
- H - 107 5/8 - Edge to edge of indicated holes.
- J - 52 1/4 - From rear edge of cross member beneath center of torsion bar to edge of indicated hole.
- K - 69 13/16 - Front lower outer edge of side rail to front flange edge of cross member.
- L - 32 1/8 - TRAM - Between side rails immediately below upper control arm rear mounting brackets.
- M - 32 3/16 - TRAM - Between side rails at sway bar mountings.
- N - (12 3/8 -Sedans) (15 - Sta.Wag.) - Bottom surface of side rail to datum line.
- X - - Locations for mounting #2 and #3 datum gauges. FRONT X is from bottom surface of body support outrigger. REAR X is from center of rear spring front bolt.



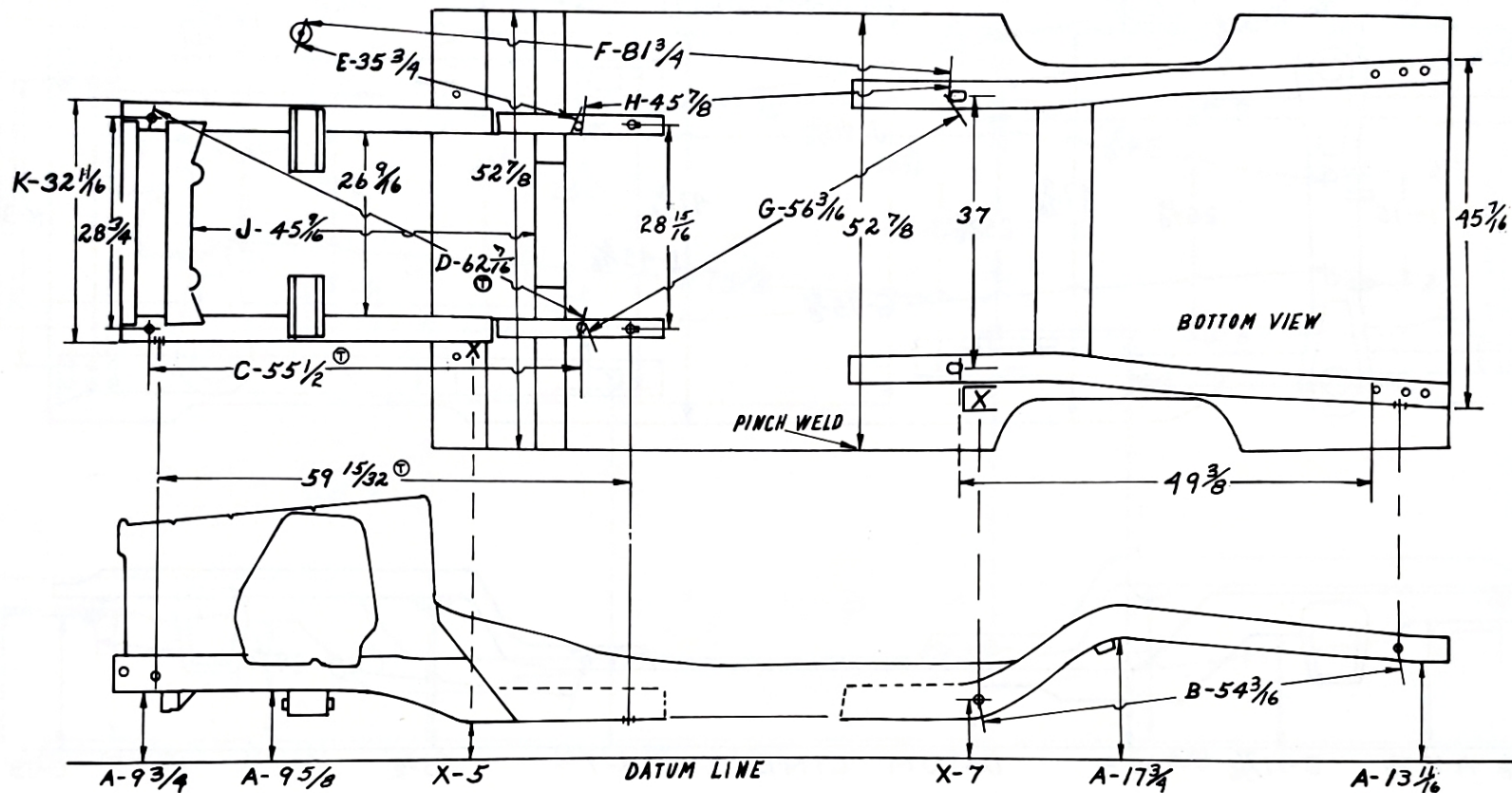
- A - 14 5/8 - From top of side rail alongside #1 body mount, to datum line.
- B - 14 7/8 - Rear top surface of side rail to datum line.
- C - (60 3/16 - 2 DR & 4 DR) (64 7/8 - Sta.Wag.) - Edge of tie down hole, to rear lower inner tip of side rail.
- D - Dimensions are to body bolt holes in top surface of frame.
- E - 22 1/4 - Center of lower ball joint grease plug, to edge of hole.
- F - 97 7/16 - Center of lower ball joint grease plug, to edge of hole.
- G - 72 7/16 - Rear lower inner edge of torque box, to edge of hole.
- H - 97 1/4 - Edge of cross member hole, to edge of hole.
- J - Torque box point is the rear lower surface, just outboard of engine support extension.
- K - 33 - Between side rails at point below bottom steering gear bolt and idler arm mounting.
- L - 97 5/8 - Edge of cross member hole, to center of hear of rear axle torque arm pivot bolt.
- M - 35 3/8 - Center to center of 1/2" holes (TOP SIDE), front anchor holes for camber adjusting tool.
- N - (46 13/16 - 2 DR & 4 DR) (53 5/8 - Sta.Wag.) - Edge to edge of indicated holes.
- X - Locations for mounting #2 and #3 datum gauges. Locate sighting pins 5" below bottom surface of outboard side rail at points indicated.

⑦ Dimensions require tramming with tram bar adjusted parallel to plane of frame; other dimensions are direct.

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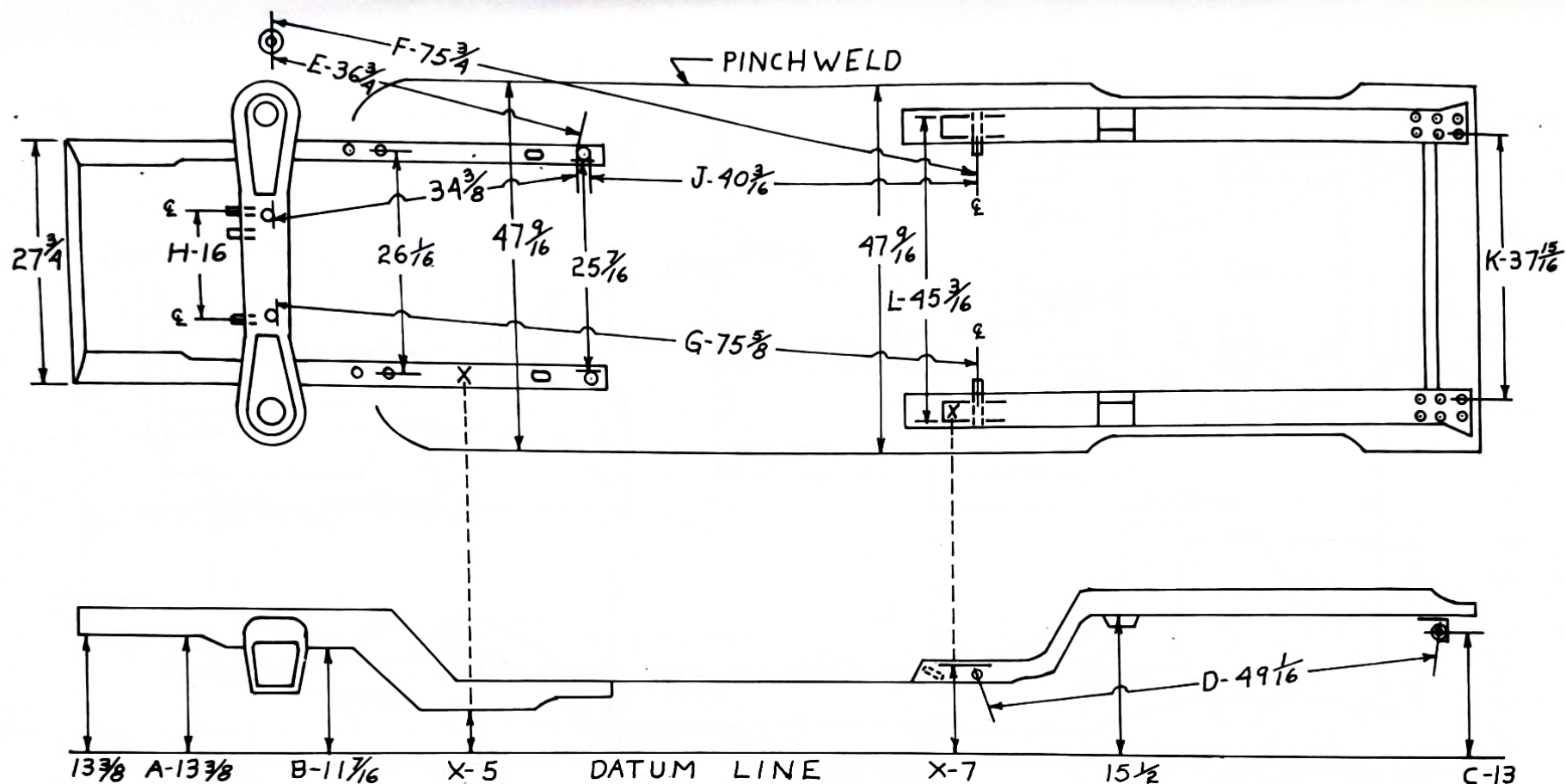
1974 Ford

2 DR & 4 DR Galaxie & LTD 121"W.B.
Ford & Mercury Station Wagons 121"W.B.

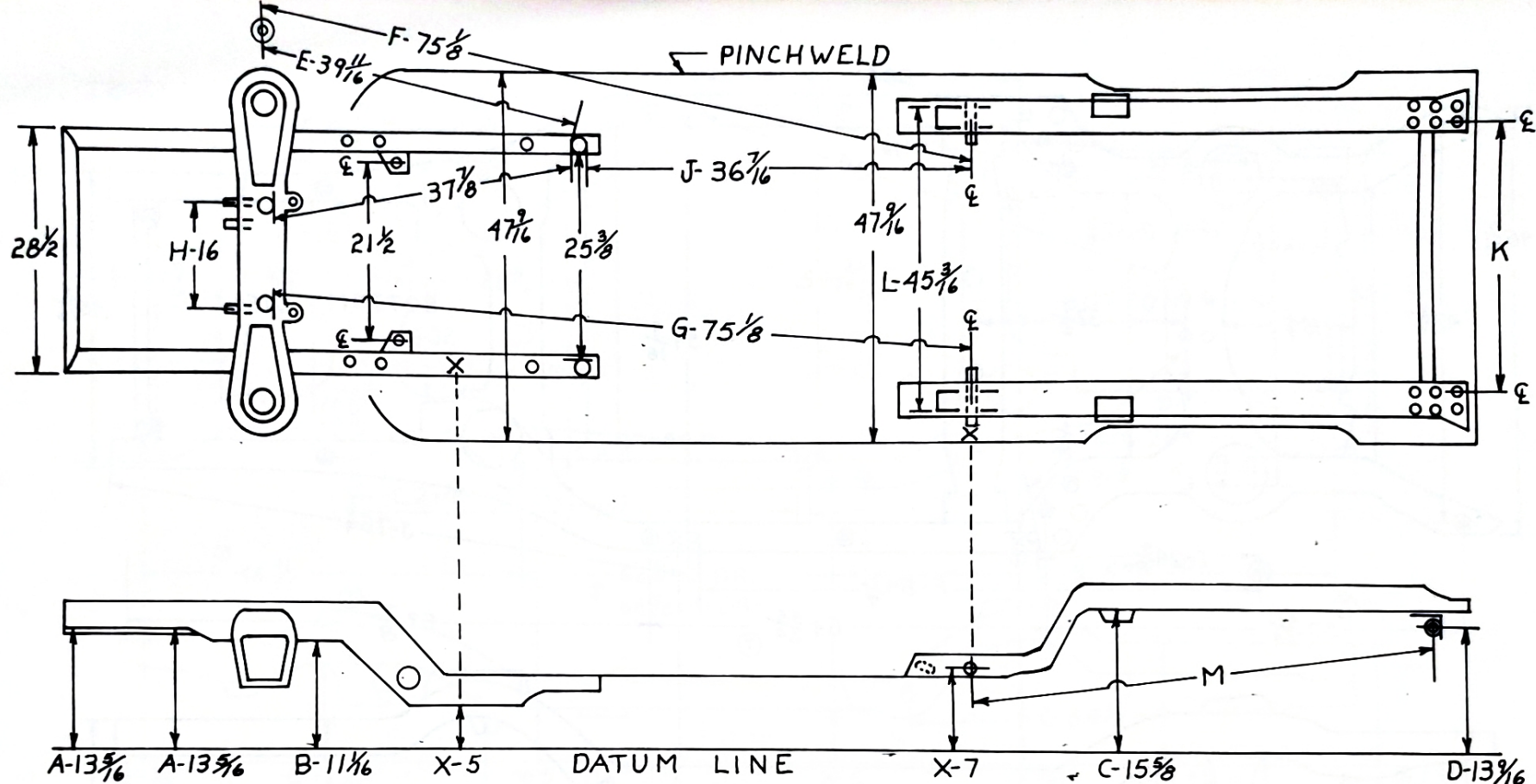


- A - Datum line dimensions are to the bottom surface of sub frame rail at areas indicated.
- B - 54 3/16 - Center of rear spring front bolt to center of rear spring shackle top pin.
- C - 55 1/2 - TRAM - Center to center of indicated gauge holes.
- D - 62 7/16 - TRAM - Center to center of indicated gauge holes.
- E - 35 3/4 - Center of grease plug in lower ball joint to edge of hole.
- F - (81 3/4 W.B.103") (88 1/4 W.B.109.9") - Center of grease plug in lower ball joint to edge of hole.
- G - (56 3/16 W.B.103") (61 7/8 W.B.109.9") - Direct from edge to edge of indicated holes.
- H - (45 7/8 W.B.103") (52 5/8 W.B.109.9") - Direct from edge to edge of indicated holes.
- J - 45 9/16 - Direct from rear bottom edge of suspension cross member to front edge of engine support member.
- K - 32 11/16 - Overall width (bottom of rail), edge to edge of side rail flanges.
- X - Locations for mounting #2 and #3 datum gauges. Locate sighting pin at FRONT X - 5" below bottom surface of sub frame rail; at REAR X - 7" below center of rear spring front bolt.

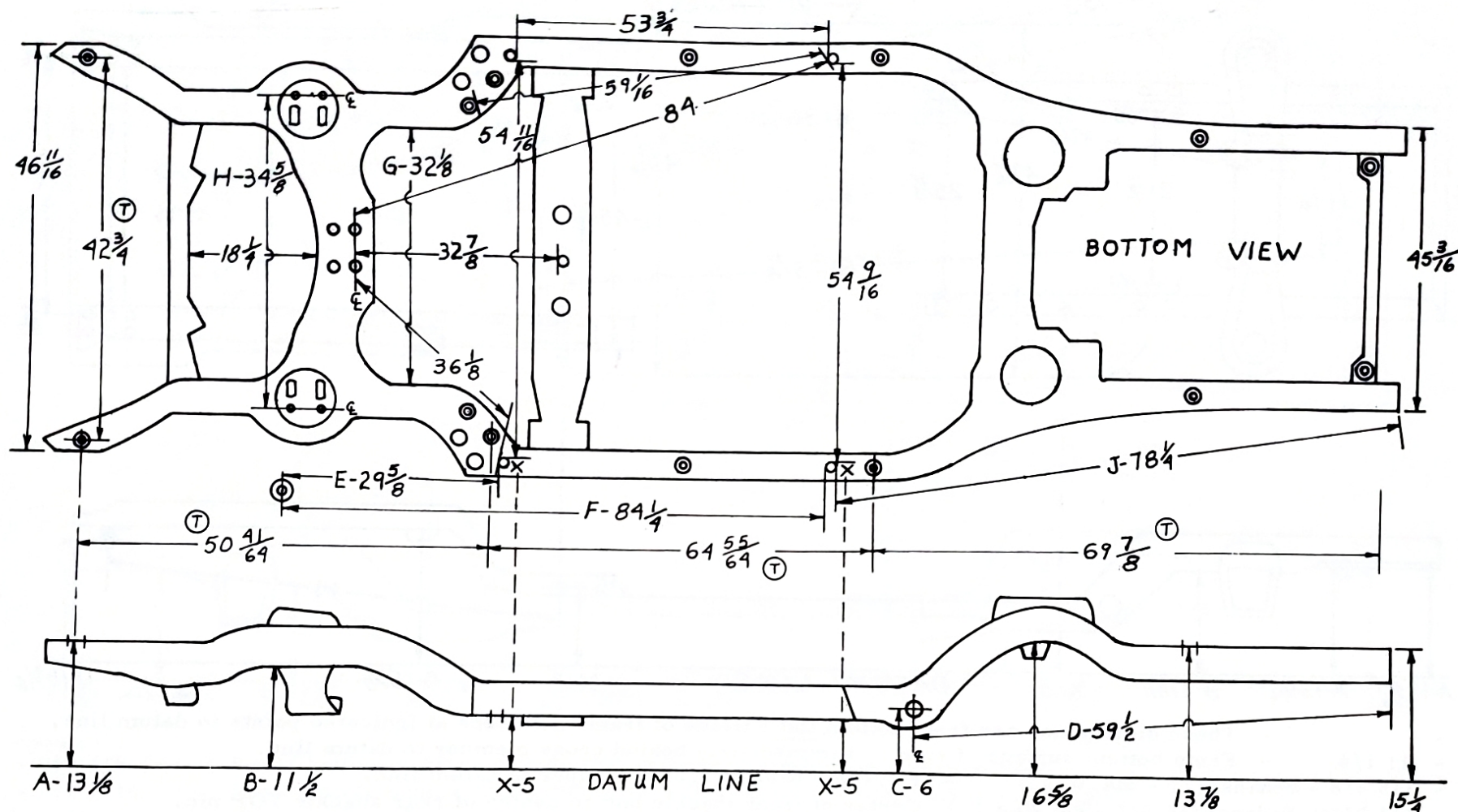
Ⓣ Dimensions checked with a tram adjusted so tram bar is parallel to plane of body; other dimensions direct.



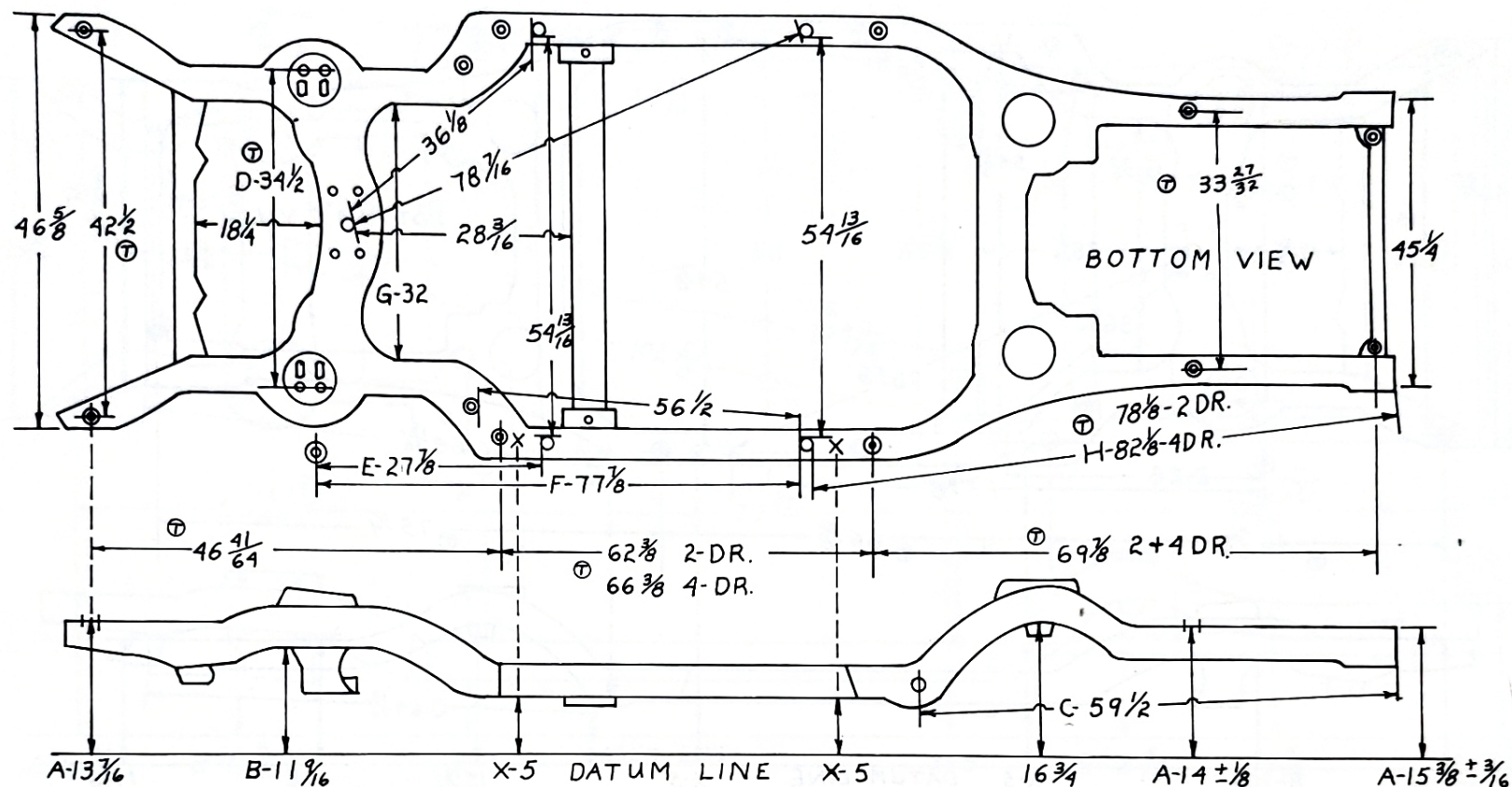
- | | |
|--|---|
| A - 13 3/8 | - From bottom surface of side rail at sway bar mounting to datum line. |
| B - 11 7/16 | - Immediately behind cross member on flat surface of side rail to datum line. |
| C - 13 | - From center of rear shackle top pin to datum line. |
| D - 49 1/16 | - Center of front shackle bolt to center of rear shackle TOP pin. |
| E - 36 3/4 | - Center of ball joint grease plug to edge of indicated hole. |
| F - 75 3/4 | - Center of ball joint grease plug to center of front spring shackle pin. |
| G - 75 5/8 | - Edge of cross member hole to center of front spring shackle pin. |
| H - 16 | - Center to center of steering rack mounting bolts (outer bolt on left side). |
| J - 40 3/16 | - Edge of front hole to center of rear spring front shackle pin. |
| K - 37 15/16 | - Center to center of inner bumper cylinder plate bolts. |
| L - 45 3/16 | - Outer edge to outer edge of rear spring front shackle pin brackets. |
| X - | - Locations for mounting #2 and #3 datum gauges. |
| FRONT X - 5" - Adjust sighting pin 5" below bottom surface of stub frame rail. | |
| REAR X - 7" - Adjust rear sighting pin 7" below floor pan reinforcement of front spring shackle bracket. | |



- A - These dimensions are from bottom flat surface of frame members at indicated points to datum line.
 B - 11 1/6 - From bottom surface of side rail immediately behind cross member to datum line.
 C - (15 5/8 - Sedans) (17 - Sta.Wag.) - From the base of rubber bumper to datum line.
 D - (13 9/16 - Sedans) (15 3/4 - Sta.Wag.) - Center of front shackle bolt to center of rear shackle TOP pin.
 E - 39 11/16 - Center of ball joint grease plug to edge of indicated hole.
 F - 75 1/8 - Center of ball joint grease plug to center of rear spring front shackle pin.
 G - 75 1/8 - Edge of cross member hole to center of rear spring front shackle pin.
 H - 16 - Center to center of steering rack mounting bolts (outer bolt on left side).
 J - 36 7/16 - Edge of hole to center of rear spring front shackle pin.
 K - (38 1/4 - Sedans) (41 3/8 - Sta.Wag.) - Center to center of inner bumper cylinder plate bolts.
 L - 45 3/16 - Outer edge to outer edge of rear spring front shackle pin brackets.
 M - (47 15/16 - Sedans) (50 9/16 - Sta.Wag.) - Center of rear spring front shackle bolt to center of rear shackle TOP pin.
 X - - Locations for mounting #2 and #3 datum gauges.
 FRONT X - 5" - Adjust sighting pin 5" below bottom surface of stub frame rail.
 REAR X - 7" - Adjust rear sighting pin 7" below center of rear spring front shackle pin.

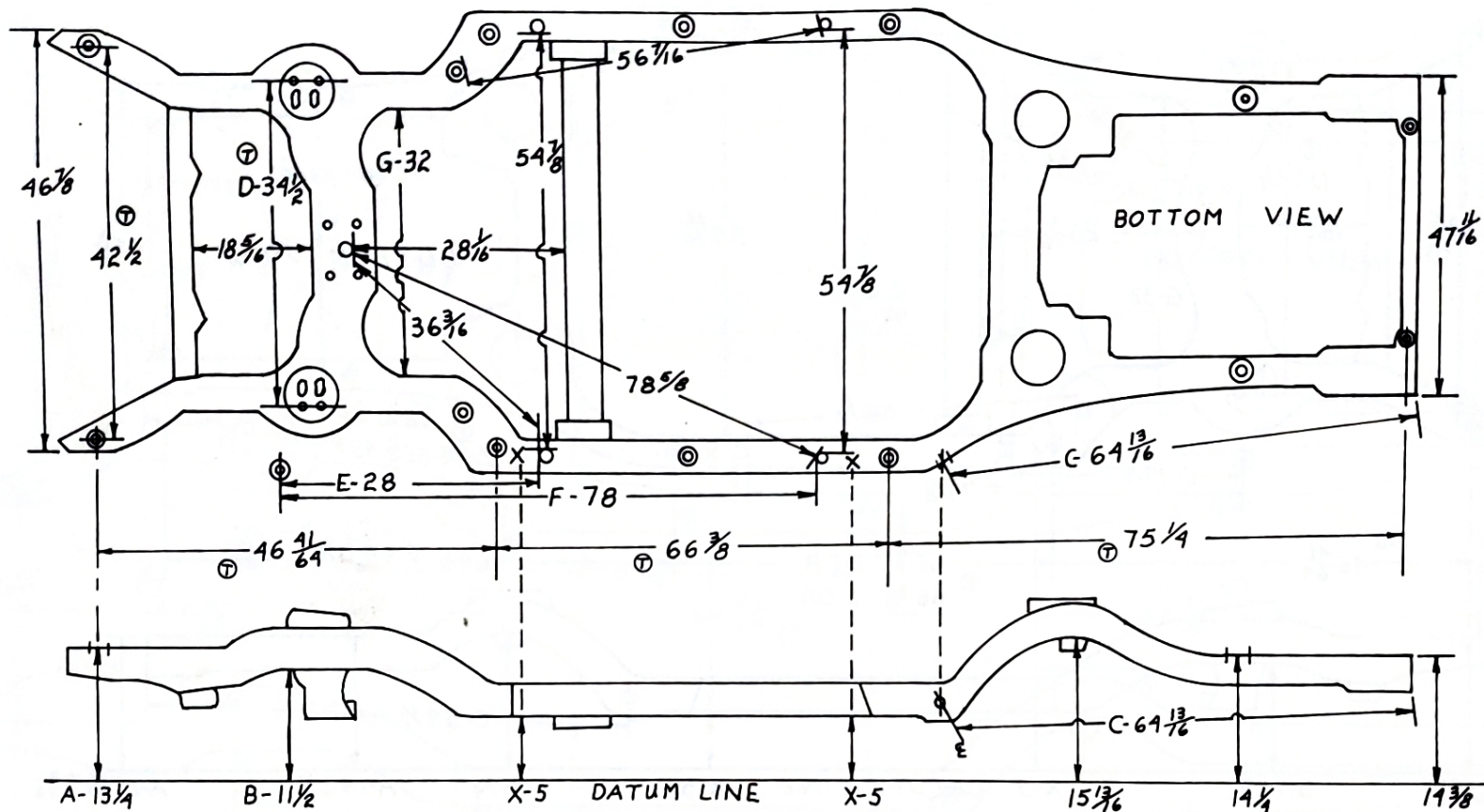


- | | |
|------------|--|
| A - 13 1/8 | - From top surface of side rail alongside front body mount, to datum line. |
| B - 11 1/2 | - From the bottom surface of cross member just forward of spring pocket, to datum line. |
| C - 6 | - From center of the front radius arm pin to datum line. |
| D - 59 1/2 | - From center of the front radius arm pin to lower bottom outer edge of side rail. |
| E - 29 5/8 | - Center of lower ball joint grease plug, to edge of hole. |
| F - 84 1/4 | - Center of lower ball joint grease plug, to edge of hole. |
| G - 32 1/8 | - Between side rails at steering gear lower mounting bolt area to idler arm mounting. |
| H - 34 5/8 | - TOP SIDE - Center to center of 1/2" holes (front anchor holes for camber adjusting tool). |
| J - 78 1/4 | - From edge of gauge hole to lower bottom outer edge of side rail. |
| X - | - Locations for mounting #2 and #3 datum gauges. Locate sighting pins to 5" below bottom surface of side rail at both locations. |



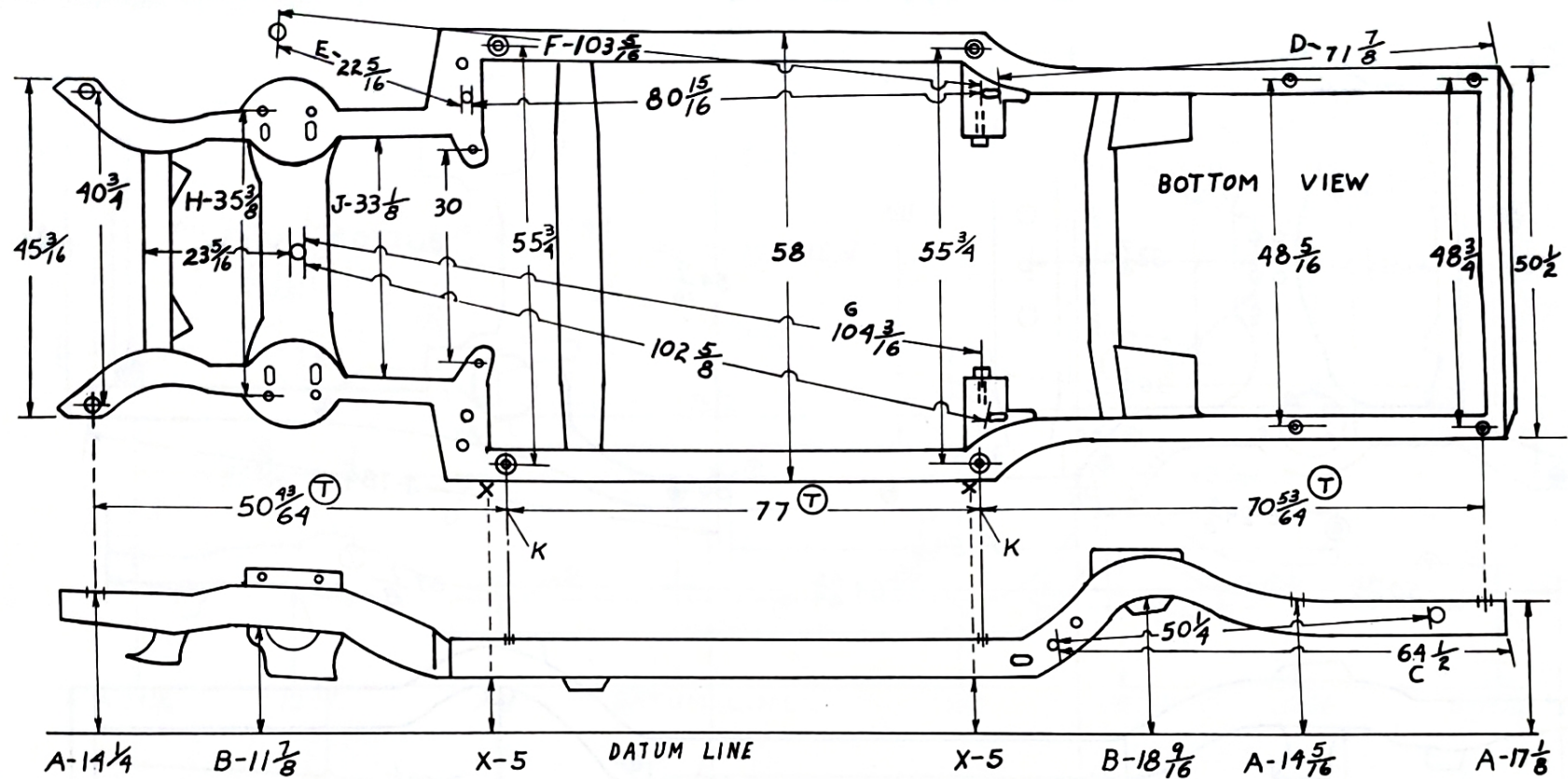
- A - These dimensions are from top surface of side rail to datum line.
- B - 11 9/16 - From the bottom surface of cross member just forward of spring pocket, to datum line.
- C - 59 1/2 - From center of front radius arm pin to lower bottom outer edge of side rail.
- D - 34 1/2 - TOP SIDE - Center to center of 1/2" holes (front anchor holes for camber adjusting tool).
- E - 27 7/8 - Center of lower ball joint grease plug, to edge of hole.
- F - 77 7/8 - Center of lower ball joint grease plug, to edge of hole.
- G - 32 - Between side rails at steering gear lower mounting bolt area to idler arm mounting.
- H - (78 1/8 - 2 DR) (82 1/8 - 4 DR) - TRAM - Edge of indicated gauge hole to lower bottom outer edge of side rail.
- X - Locations for mounting #2 and #3 datum gauges. Locate sighting pins to 5" below bottom surface of side rail at both locations.

Ⓣ Dimensions require tramming with tram bar level or parallel to plane of body. Other dimensions are direct.

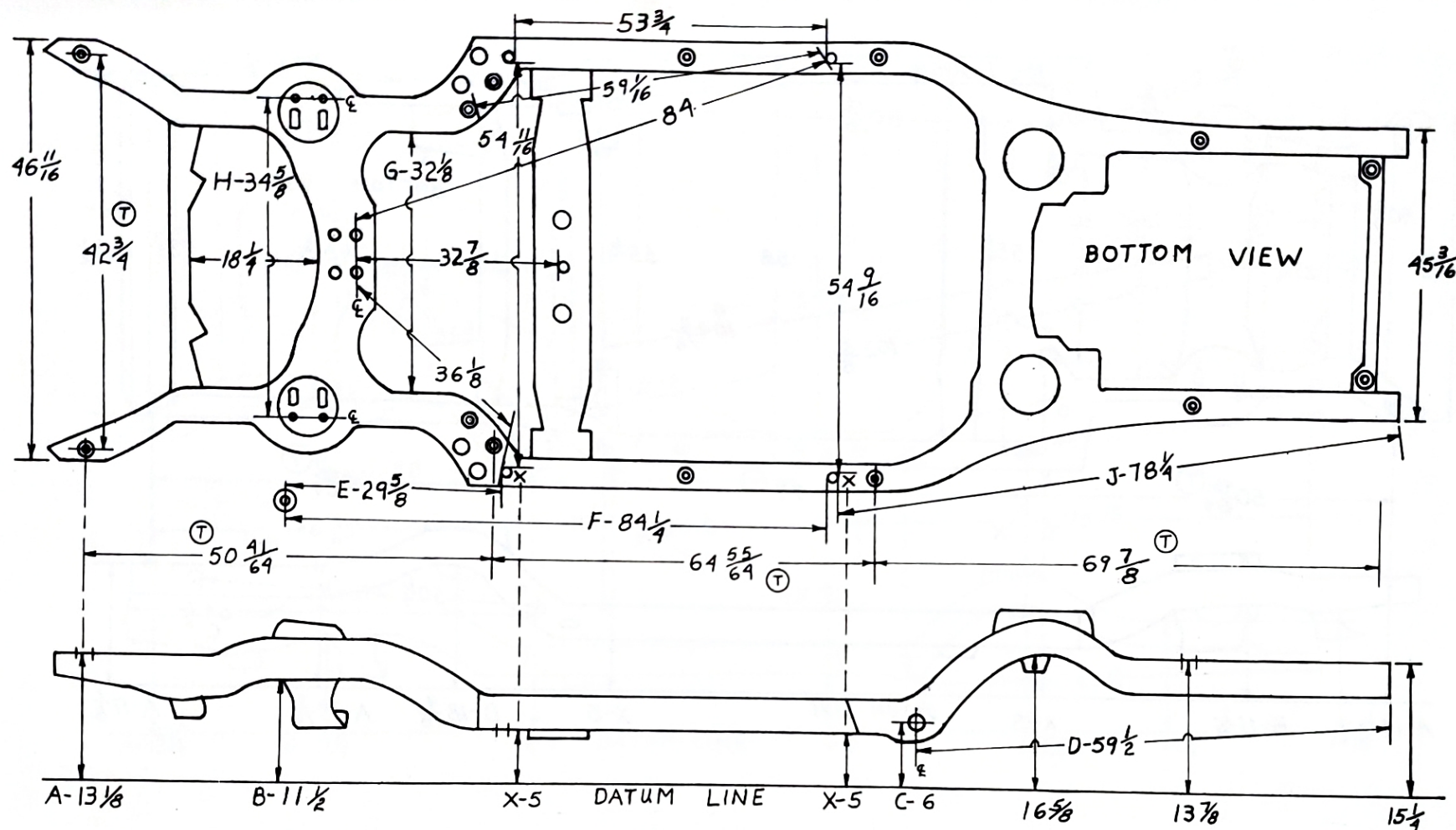


- A - 13 1/4 - From top surface of side rail alongside #1 body mount, to datum line.
- B - 11 1/2 - From the bottom surface of cross member just forward of spring pocket to datum line.
- C - 64 13/16 - From center of front radius arm pin to lower bottom outer edge of side rail.
- D - 34 1/2 - TOP SIDE - Center to center of 1/2" holes (front anchor holes for camber adjusting tool).
- E - 28 - Center of lower ball joint grease plug, to edge of hole.
- F - 78 - Center of lower ball joint grease plug, to edge of hole.
- G - 32 - Between side rails at steering gear lower mounting bolt area to idler arm mounting.
- X - - Locations for mounting #2 and #3 datum gauges. Locate sighting pins to 5" below bottom surface of side rail at both locations.

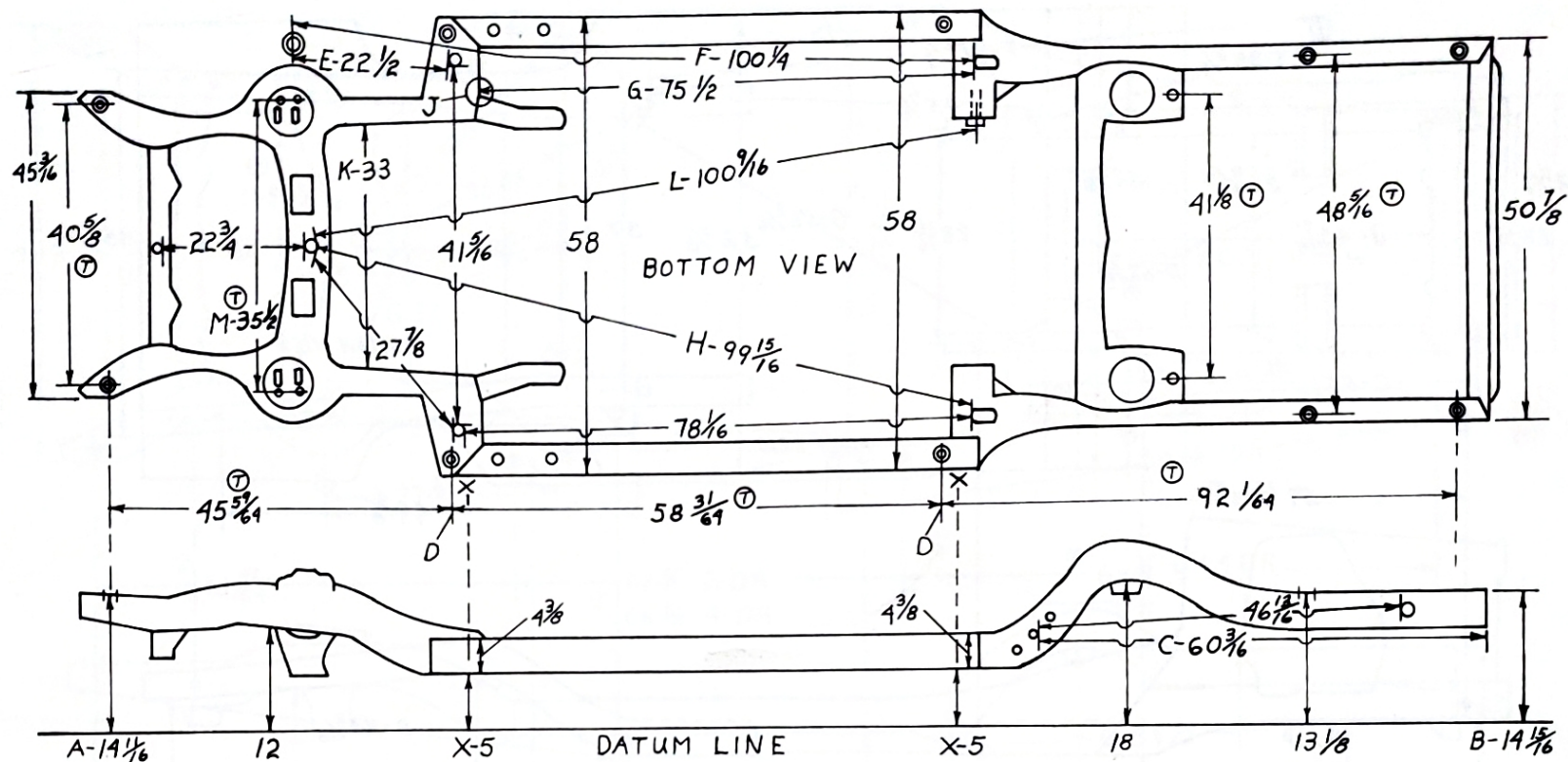
⑦ Dimensions require tramming with tram bar level or parallel to plane of body; other dimensions are direct.



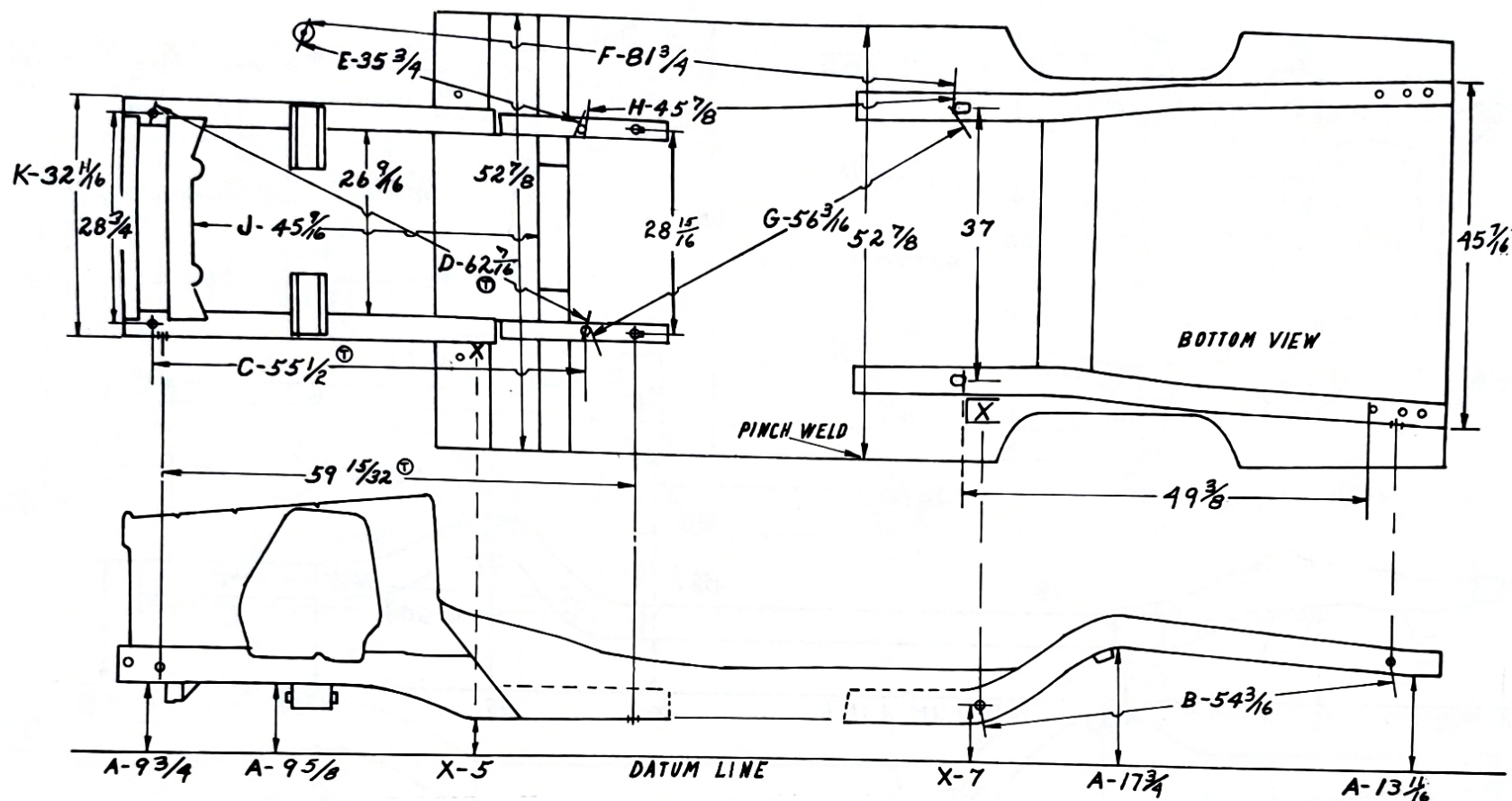
- | | |
|-----------------------|--|
| A - | - These dimensions are from top surface of frame at locations indicated, to datum line. |
| B - | - These dimensions are from bottom surface of frame at locations indicated, to datum line. |
| C - $64\frac{1}{2}$ | - Edge of hole, to rear lower outer tip of side rail. |
| D - $71\frac{7}{8}$ | - Edge of elongated hole, to rear lower outer tip of side rail. |
| E - $22\frac{5}{16}$ | - Center of lower ball joint grease plug, to edge of hole. |
| F - $103\frac{5}{16}$ | - Center of lower ball joint grease plug, to edge of elongated hole. |
| G - $104\frac{3}{16}$ | - Edge of cross member hole, to center of head of rear axle control arm pivot bolt. |
| H - $35\frac{3}{8}$ | - TOP SIDE - Center to center of $\frac{1}{2}$ " holes (front anchor holes for camber adjusting tool). |
| J - $33\frac{1}{8}$ | - Between side rails at point below bottom steering gear bolt and idler arm mounting. |
| K - | - These dimensions are to body bolt holes in top surface of frame. |
| X - | - Locations for mounting #2 and #3 datum gauges. Locate sighting pins to 5" below the bottom surface of side rail at both locations. |



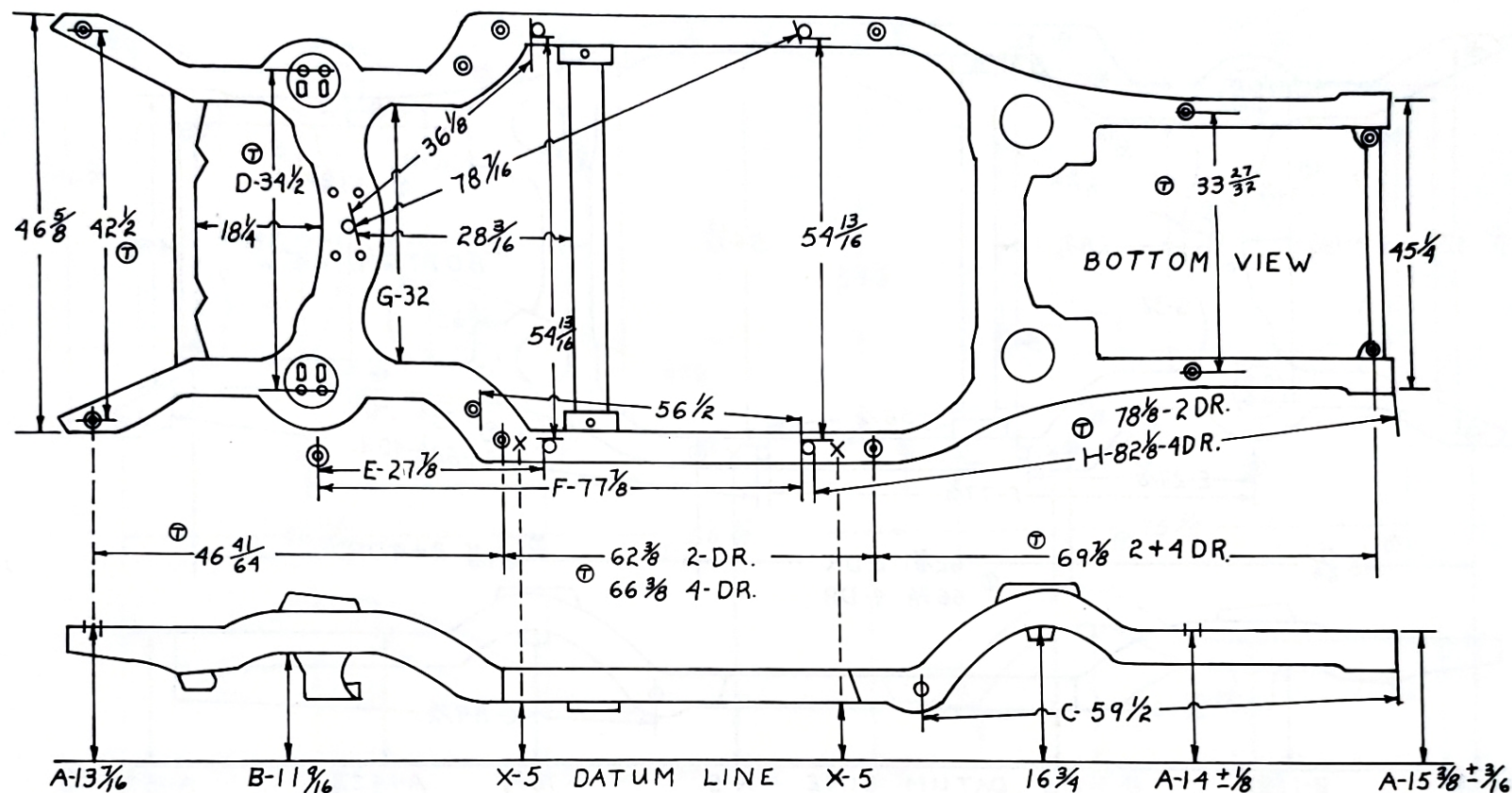
- | | |
|------------|--|
| A - 13 1/8 | - From the top surface of side rail alongside front body mount, to datum line. |
| B - 11 1/2 | - From the bottom surface of cross member just forward of spring pocket, to datum line. |
| C - 6 | - From center of the front radius arm pin to datum line. |
| D - 59 1/2 | - From center of the front radius arm pin to lower bottom outer edge of side rail. |
| E - 29 5/8 | - Center of lower ball joint grease plug, to edge of hole. |
| F - 84 1/4 | - Center of lower ball joint grease plug, to edge of hole. |
| G - 32 1/8 | - Between side rails at steering gear lower mounting bolt area to idler arm mounting. |
| H - 34 5/8 | - TOP SIDE - Center to center of 1/2" holes (front anchor holes for camber adjusting tool). |
| J - 78 1/4 | - From edge of gauge hole to lower bottom outer edge of side rail. |
| X - | - Locations for mounting #2 and #3 datum gauges. Locate sighting pins to 5" below bottom surface of side rail at both locations. |



⑦ Dimensions require tramming with tram bar level or parallel to plane of frame; other dimensions are direct.

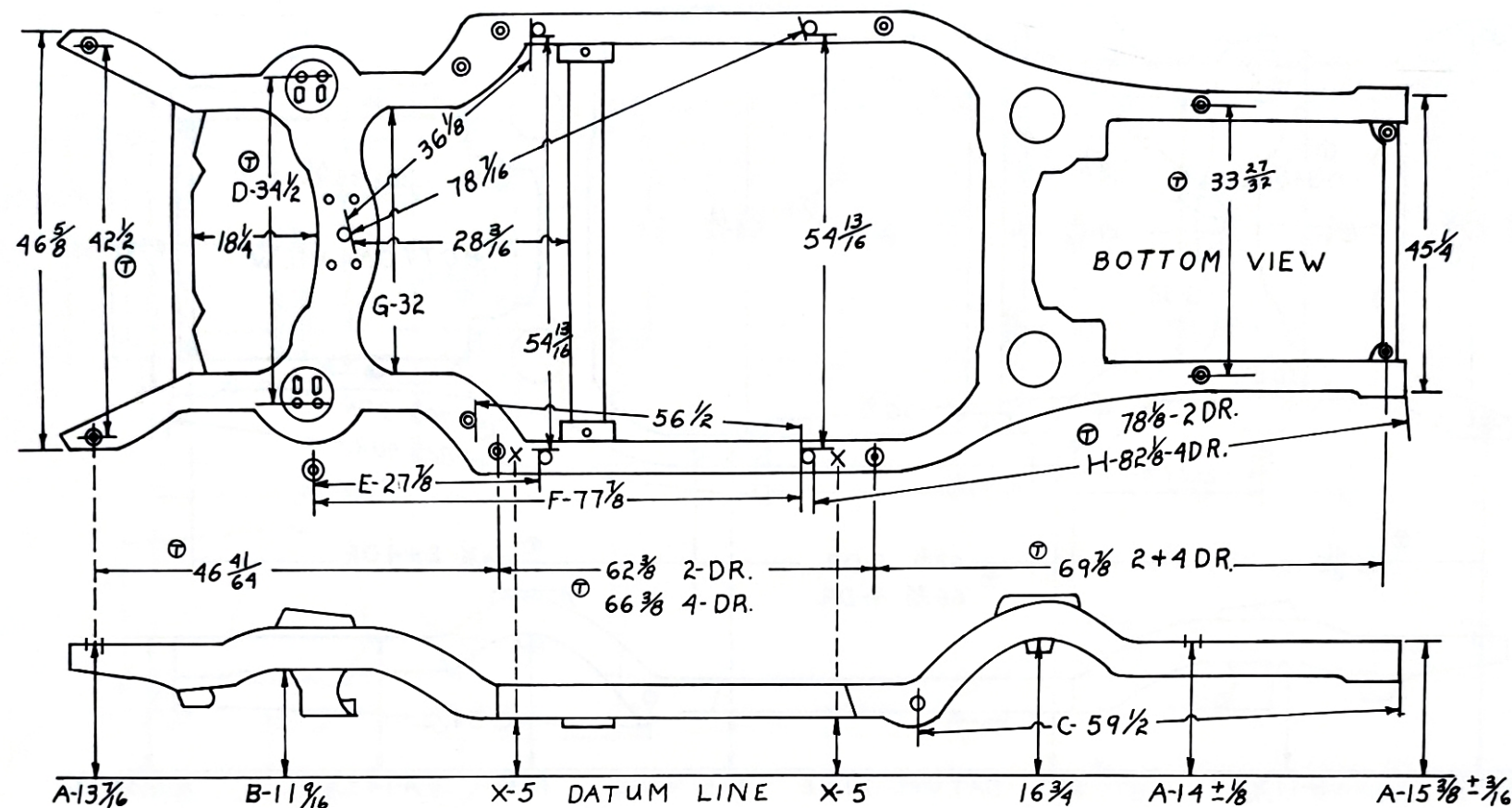


- A - Datum line dimensions are to the bottom surface of sub frame rail at areas indicated.
- B - 54 3/16 - Center of rear spring front bolt to center of rear spring shackle top pin.
- C - 55 1/2 - TRAM - Center to center of indicated gauge holes.
- D - 62 7/16 - TRAM - Center to center of indicated gauge holes.
- E - 35 3/4 - Center of grease plug in lower ball joint to edge of hole.
- F - (81 3/4 W.B.103") (88 1/4 W.B.109.9") - Center of grease plug in lower ball joint to edge of hole.
- G - (56 3/16 W.B.103") (61 7/8 W.B.109.9") - Direct from edge to edge of indicated holes.
- H - 45 7/8 W.B.103") (52 5/8 W.B.109.9") - Direct from edge to edge of indicated holes.
- J - 45 9/16 - Direct from rear bottom edge of suspension cross member to front edge of engine support member.
- K - 32 11/16 - Overall width (bottom of rail), edge to edge of side rail flanges.
- X - Locations for mounting #2 and #3 datum gauges. Locate sighting pin at FRONT X - 5" below bottom surface of sub frame rail; at REAR X - 7" below center of rear spring front bolt.



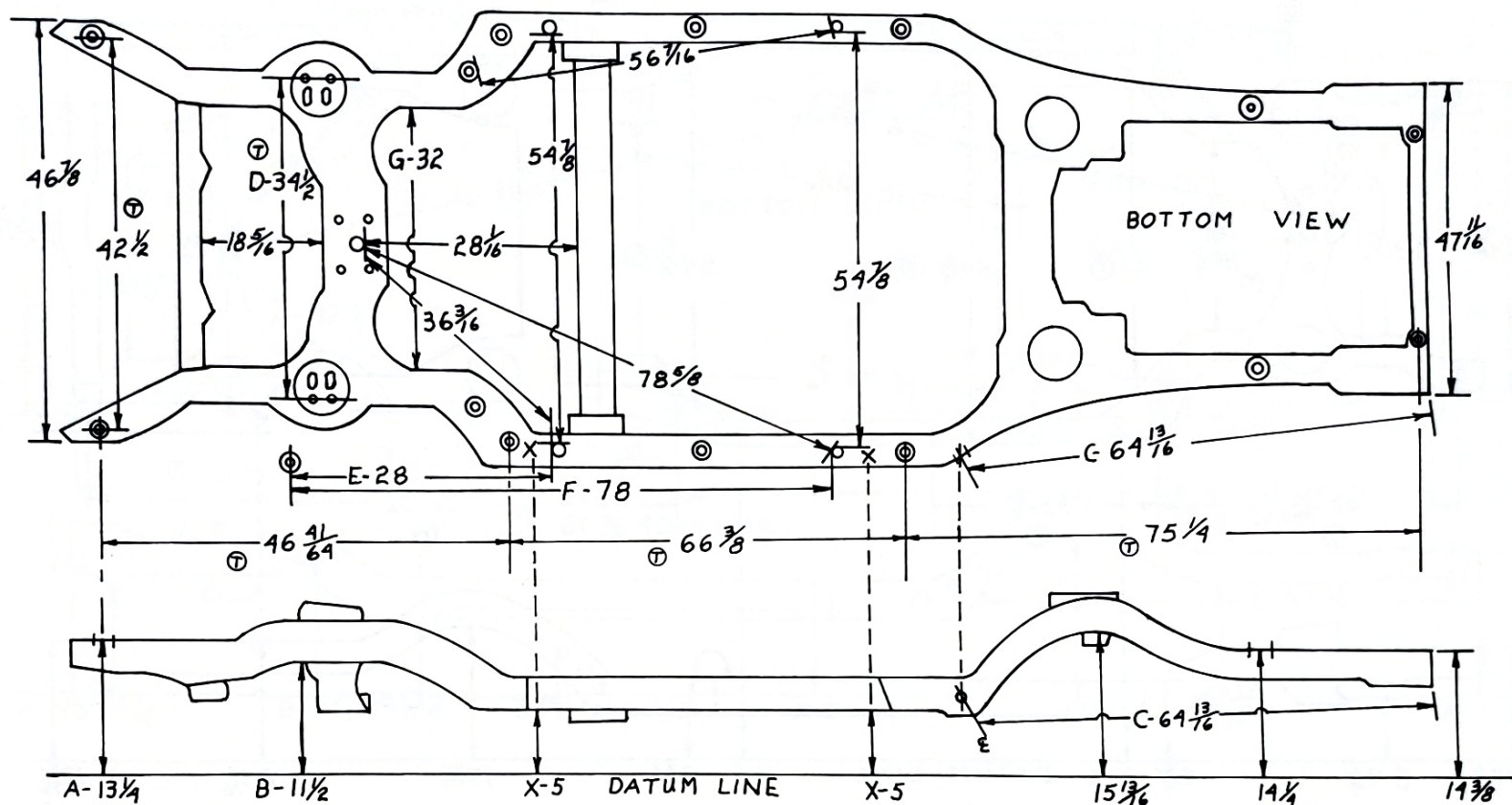
- A - - These dimensions are from top surface of side rail to datum line.
- B - 11 9/16 - From the bottom surface of cross member just forward of spring pocket, to datum line.
- C - 59 1/2 - From center of front radius arm pin to lower bottom outer edge of side rail.
- D - 34 1/2 - TOP SIDE - Center to center of 1/2" holes (front anchor holes for camber adjusting tool).
- E - 27 7/8 - Center of lower ball joint grease plug, to edge of hole.
- F - 77 7/8 - Center of lower ball joint grease plug, to edge of hole.
- G - 32 - Between side rails at steering gear lower mounting bolt area to idler arm mounting.
- H - (78 1/8 - 2 DR) (82 1/8 - 4 DR) - TRAM - Edge of indicated gauge hole to lower bottom outer edge of side rail.
- X - - Locations for mounting #2 and #3 datum gauges. Locate sighting pins to 5" below bottom surface of side rail at both locations.

Ⓣ Dimensions require tramming with tram bar level or parallel to plane of body. Other dimensions are direct.



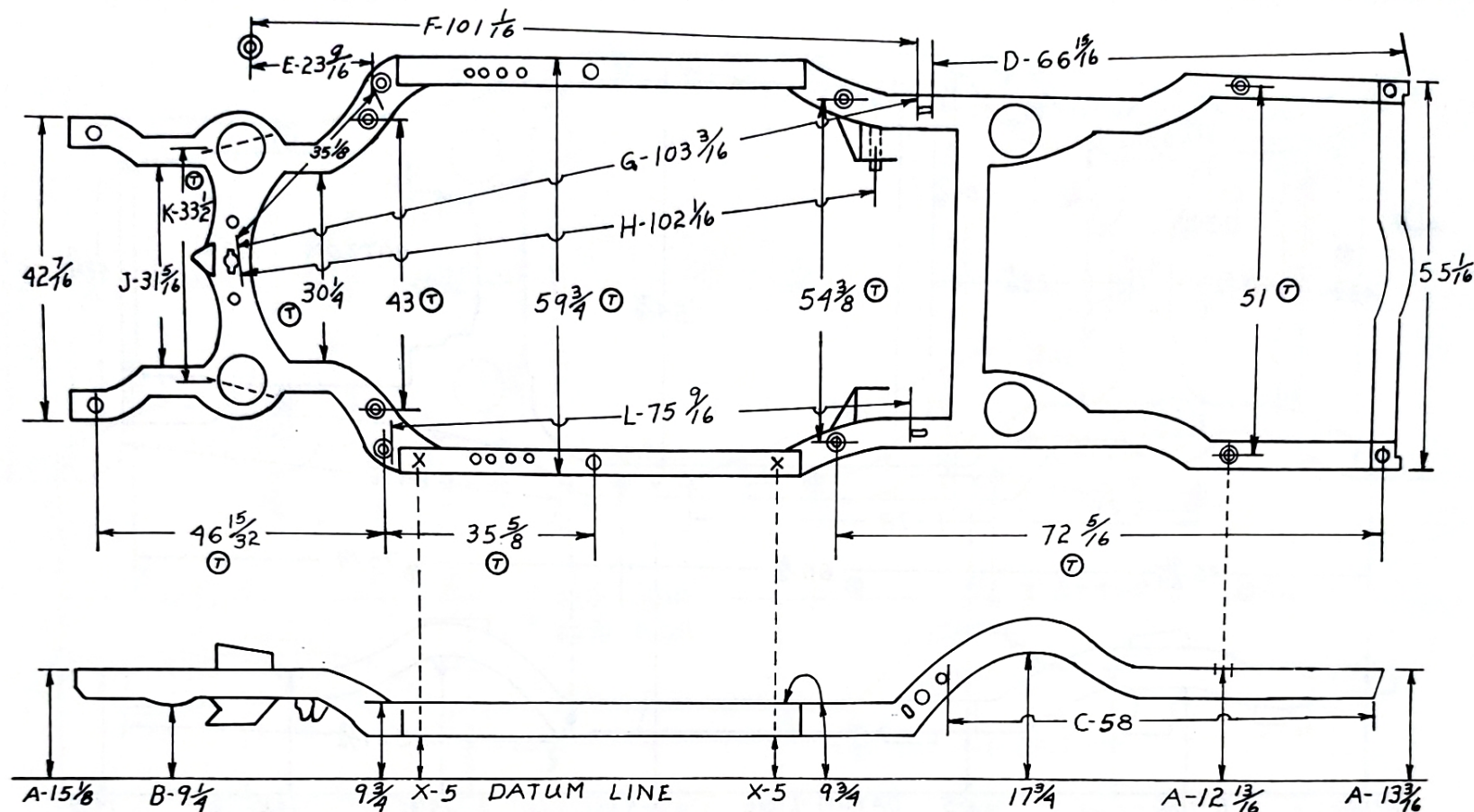
- A - These dimensions are from top surface of side rail to datum line.
 B - 11 9/16 - From the bottom surface of cross member just forward of spring pocket, to datum line.
 C - 59 1/2 - From center of front radius arm pin to lower bottom outer edge of side rail.
 D - 34 1/2 - TOP SIDE - Center to center of 1/2" holes (front anchor holes for camber adjusting tool).
 E - 27 7/8 - Center of lower ball joint grease plug, to edge of hole.
 F - 77 7/8 - Center of lower ball joint grease plug to edge of hole.
 G - 32 - Between side rails at steering gear lower mounting bolt area to idler arm mounting.
 H - (78 1/8 - 2 DR) (82 1/8 - 4 DR) - TRAM - Edge of indicated gauge hole to lower bottom outer edge of side rail.
 X - Locations for mounting #2 and #3 datum gauges. Locate sighting pins to 5" below bottom surface of side rail at both locations.

① Dimensions require tramming with tram bar level or parallel to plane of body. Other dimensions are direct.

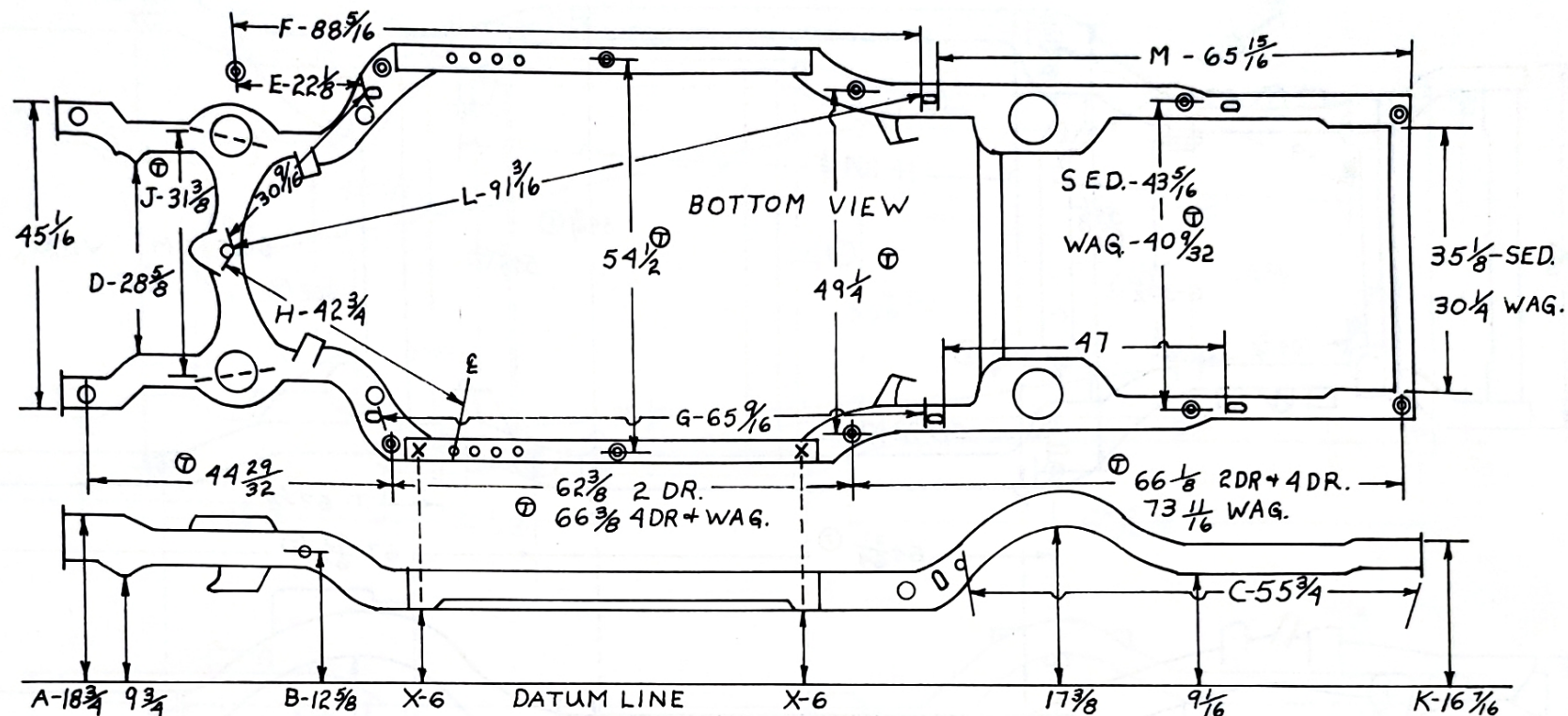


- A - 13 1/4 - From top surface of side rail alongside #1 body mount, to datum line.
- B - 11 1/2 - From the bottom surface of cross member just forward of spring pocket to datum line.
- C - 64 13/16 - From center of front radius arm pin to lower bottom outer edge of side rail.
- D - 34 1/2 - TOP SIDE - Center to center of 1/2" holes (front anchor holes for camber adjusting tool).
- E - 28 - Center of lower ball joint grease plug to edge of hole.
- F - 78 - Center of lower ball joint grease plug, to edge of hole.
- G - 32 - Between side rails at steering gear lower mounting bolt area to idler arm mounting.
- X - - Locations for mounting #2 and #3 datum gauges. Locate sighting pins to 5" below bottom surface of side rail at both locations.

⑦ Dimensions require tramming with tram bar level or parallel to plane of body; other dimensions are direct.



- A - A dimensions are from top surface of frame side rail at indicated points to datum line.
- B - 9 $\frac{1}{4}$ - From frame rail at lowest point of sway bar mounting area to datum line.
- C - 58 - From indicated flanged tie down hole to lower outer bottom edge of rail.
- D - 66 $\frac{15}{16}$ - From edge of elongated hole to lower outer bottom edge of frame side rail.
- E - 23 $\frac{9}{16}$ - From center of ball joint grease plug to edge of outer body bolt access hole.
- F - (101 $\frac{1}{16}$ W.B.124") (104 $\frac{1}{2}$ W.B.127") From center of ball joint grease plug to edge of elongated hole.
- G - (103 $\frac{3}{16}$ W.B.124") (106 $\frac{9}{16}$ W.B.127") From edge to edge of indicated holes.
- H - (102 $\frac{1}{16}$ W.B.124") (105 $\frac{1}{2}$ W.B.127") From edge of indicated hole to center of rear torque arm mounting pin.
- J - 31 $\frac{5}{16}$ - From lower steering gear mounting surface to idler arm mounting surface.
- K - 33 $\frac{1}{2}$ - TRAM - TOP SIDE - Between upper control arm mounting brackets at FRONT shim contact area.
- L - (75 $\frac{9}{16}$ W.B.124") (79 W.B.127") From edge of outer body bolt access hole to edge of elongated hole.
- X - Locations for mounting #2 and #3 datum gauges. Two dimensions given at each location.
- FRONT X - 9 $\frac{3}{4}$ " from top surface of side rail or 5" from bottom surface of side rail to datum line.
- REAR X - 9 $\frac{3}{4}$ " from top surface of side rail or 5" from bottom surface of side rail to datum line.
- \textcircled{T} Dimensions require tramming with tram bar parallel to pane of body; other dimensions are direct.



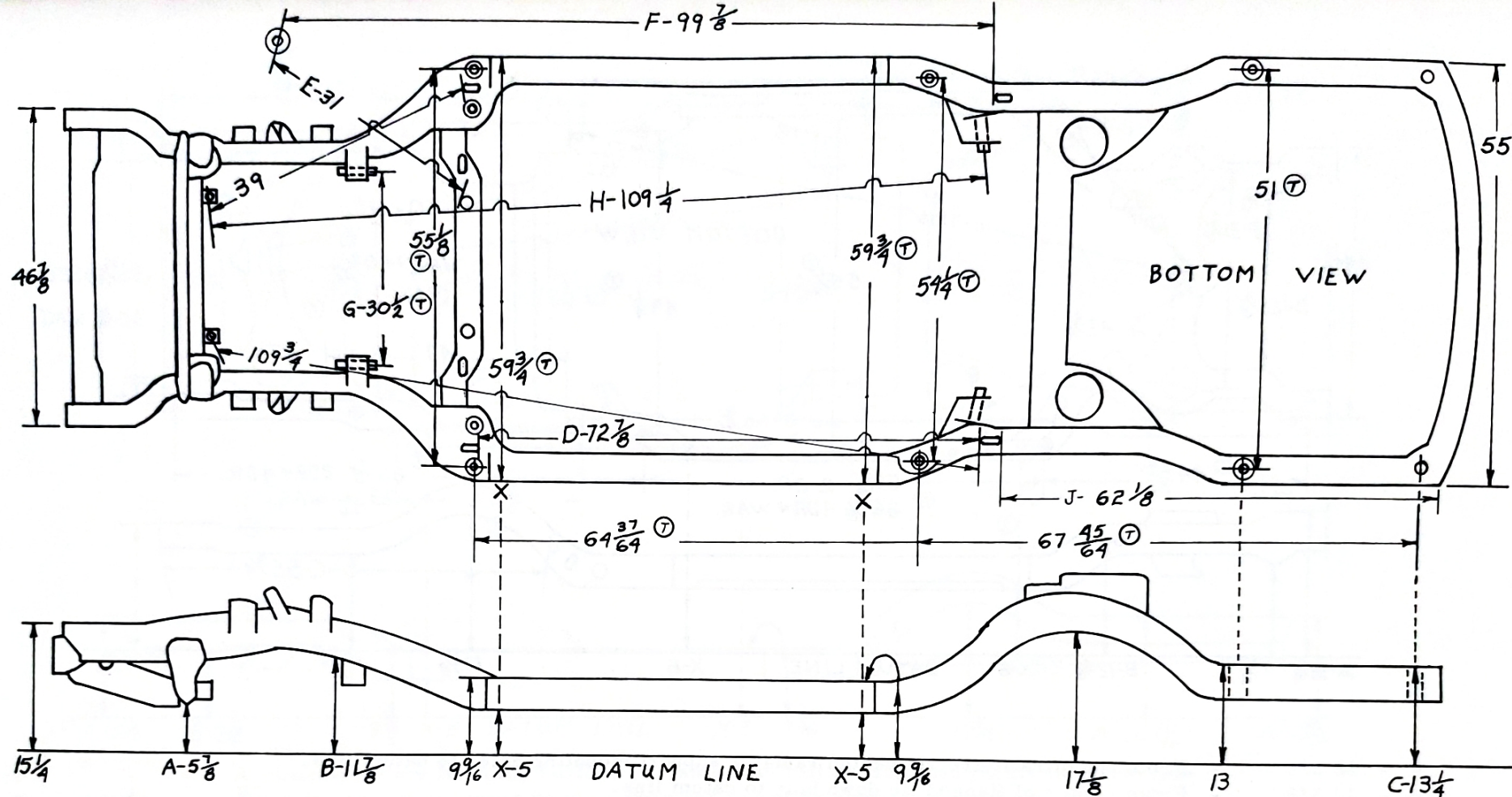
- A - 18 3/4 - From top of rail directly behind radiator support mounting hole, to datum line.
 B - 12 5/8 - From center of flanged tie down hole to datum line.
 C - (55 3/4 - 2 DR & 4 DR) (63 1/8 - Sta.Wag.) - Edge of tie down hole to lower bottom outer flanged edge of side rail.
 D - 28 5/8 - Between side rail at lower steering gear bdt to idler arm mounting surface.
 E - 22 1/8 - Center of lower ball joint grease fitting, to edge of hole.
 F - (88 5/16 - 2 DR) (92 5/16 - 4 DR & Sta.Wag.) - Center of ball joint grease fitting, to edge of hole.
 G - (65 9/16 - 2 DR) (69 5/8 - 4 DR & Sta.Wag.) - Edge to edge of indicated holes.
 H - 42 3/4 - Edge of cross member hole to center of indicated hole.
 J - 31 3/8 - TRAM - TOP SIDE - Between upper control arm inner shaft seats at front shim contact surface.
 K - 16 7/16 - Rear top surface of frame rail (at body bolt area) to datum line.
 L - (91 3/16 - 2 DR) (94 15/16 - 4 DR & Sta.Wag.) - Edge to edge of indicated holes.
 M - (65 15/16 - 2 DR & 4 DR) (73 - Sta.Wag.) - Edge of indicated hole to lower bottom outer edge of side rail.
 X - - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins to 6" below the lowermost surface of the frame side rail at the locations indicated.

⊕ Dimensions require tramping with tram bar level or parallel to plane of body; other dimensions are direct.

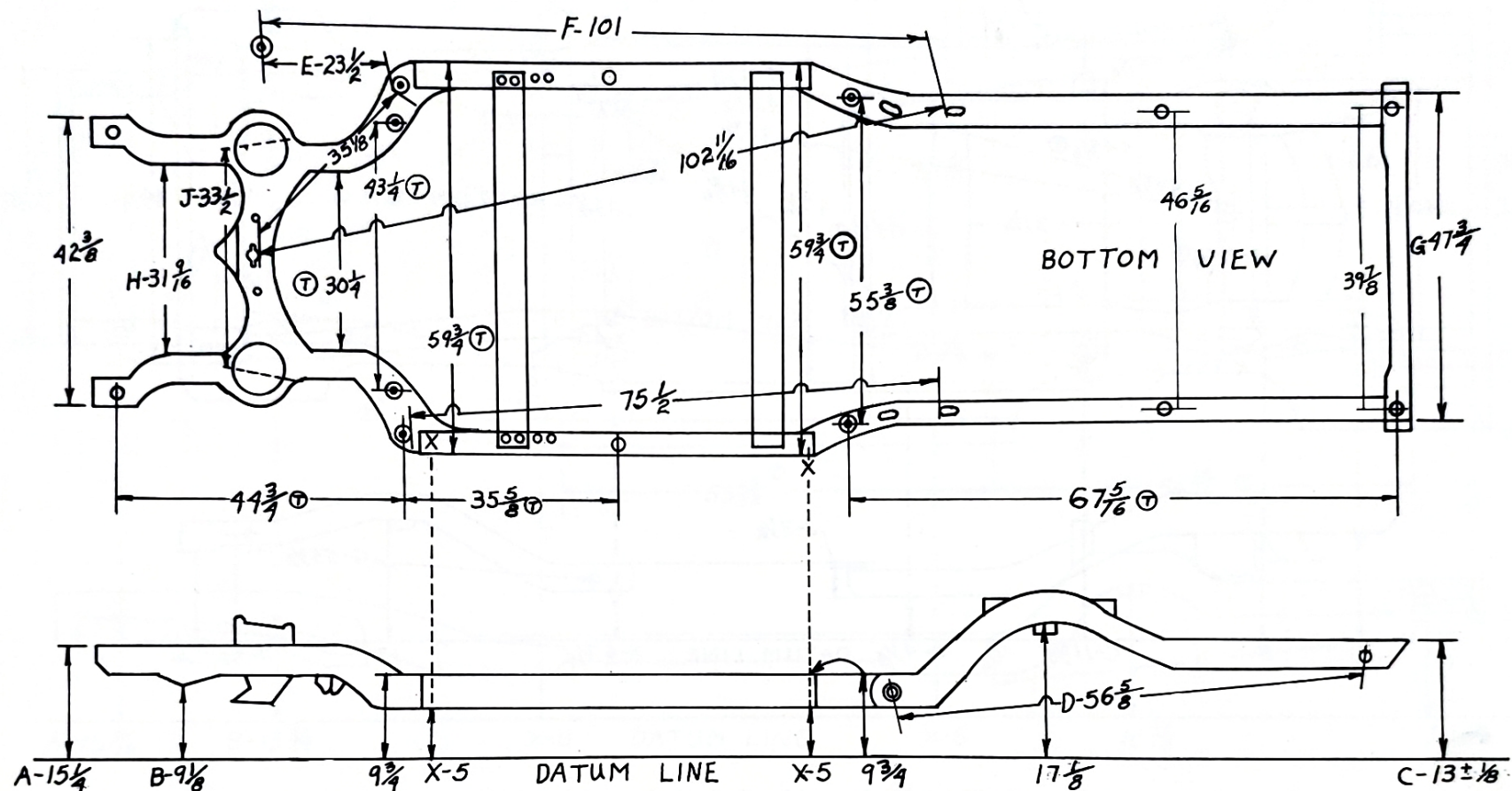
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1974 Oldsmobile Cutlass

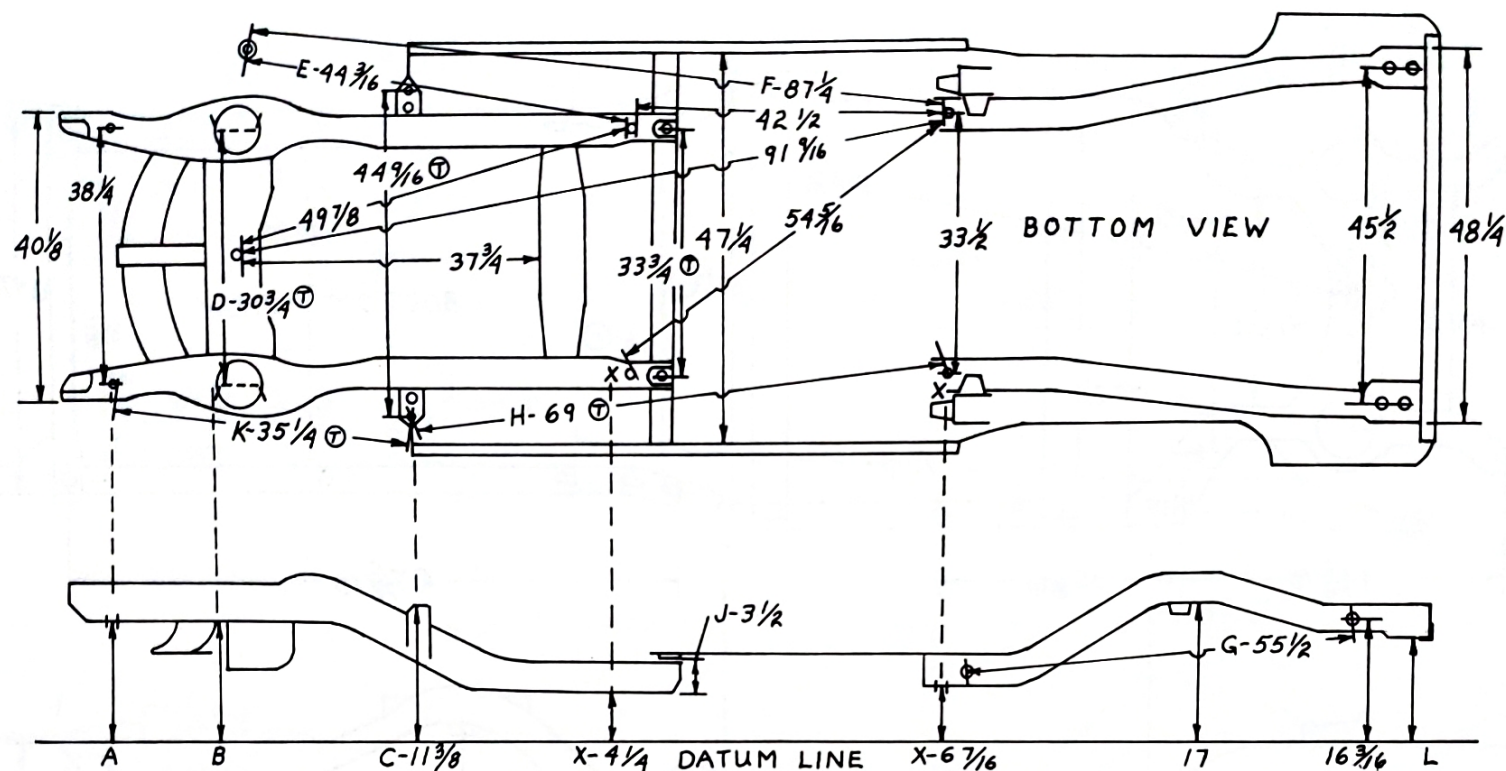
2 DR 112" W.B.
 4 DR 116" W.B.
 Sta.Wag. 116" W.B.



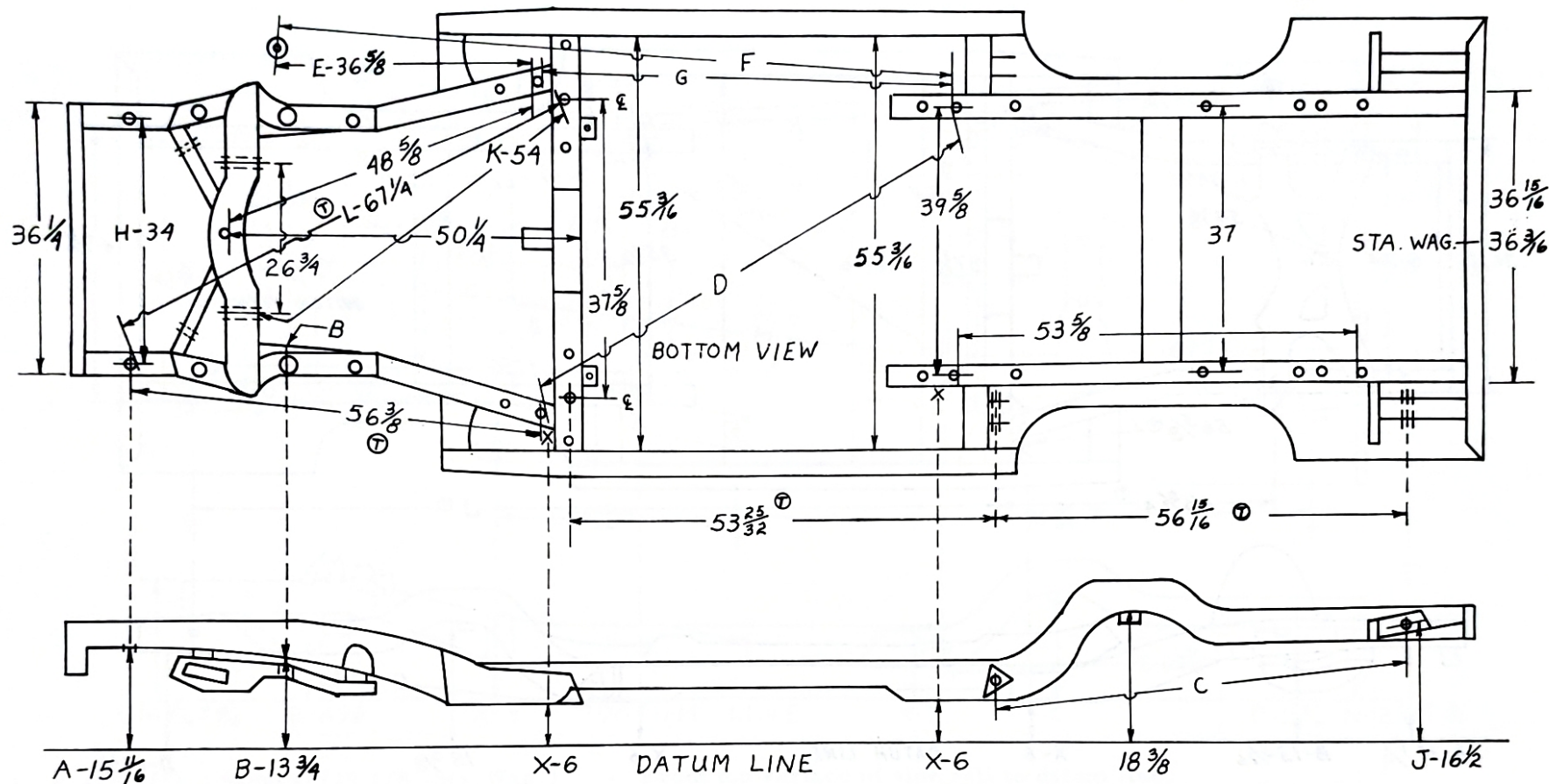
- A - 5 7/8 - From lowermost surface of front cross member to datum line.
- B - 11 7/8 - From lower surface of side rail immediately forward of lower control arm rear mounting bracket to datum line.
- C - 13 1/4 - From top surface of side rail alongside rear body mount hole to datum line.
- D - 72 7/8 - Edge to edge of indicated slotted holes.
- E - 31 - Center of tip of lower ball joint stud to edge of indicated hole.
- F - 99 7/8 - Center of tip of lower ball joint stud to edge of rear slotted hole.
- G - 30 1/2 - TRAM - Center to center of control arm mounting pins (rear).
- H - 109 1/4 - Center of indicated front cross member flange hole to center of rear torque arm mounting pin.
- J - 62 1/8 - Edge of slotted hole to rear lower bottom outer edge of side rail.
- X - - Locations for mounting #2 and #3 datum gauges. Two dimensions shown at each location.
- FRONT X - 9 9/16" from top edge of frame or 5" from bottom surface of side rail.
- REAR X - 9 9/16" from top edge of frame or 5" from lowermost edge of side rail.
- Ⓣ Dimensions require tramping with tram bar level or parallel to plane of frame; other dimensions are direct.



- | | |
|----------------------|--|
| A - $15\frac{1}{4}$ | - From top front edge of side rail to datum line. |
| B - $9\frac{1}{8}$ | - From lowermost surface of side rail at sway bar mounting area to datum line. |
| C - 13 | - From top surface of side rail (rear) to datum line. |
| D - $56\frac{5}{8}$ | - From center of front shackle pin to center of rear shackle TOP pin. |
| E - $23\frac{1}{2}$ | - From center of ball joint grease plug to edge of outer body bolt access hole. |
| F - 101 | - From center of ball joint grease plug to edge of rear slotted hole. |
| G - $47\frac{3}{4}$ | - Between rear lower outer edge of side rail flanges. |
| H - $31\frac{9}{16}$ | - From steering gear lower mounting bolt to idler arm mounting surface. |
| J - $33\frac{1}{2}$ | - TOP SIDE - Between upper control arm mounting brackets at FRONT shim area. |
| X - | - Locations for mounting #2 and #3 datum gauges. Two dimensions given at each location. |
| FRONT X | - $9\frac{3}{4}$ " from top surface of side rail or 5" from bottom surface of side rail to datum line. |
| REAR X | - $9\frac{3}{4}$ " from top surface of side rail or 5" from bottom surface of side rail to datum line. |



- | | |
|-------------|--|
| A - 10 | - From bottom surface of side rail alongside gauge hole, to datum line. |
| B - 10 | - From bottom surface of side rail just forward of spring pocket, to datum line. |
| C - 11 3/8 | - Bottom surface of #1 body support bracket (alongside gauge hole), to datum line. |
| D - 30 3/4 | - TRAM - TOP SIDE, Between upper control arm inner shaft seats (at shim contact area). |
| E - 44 3/16 | - Center of lower ball joint grease fitting to edge of hole. |
| F - 87 1/4 | - Center of lower ball joint grease fitting to edge of hole. |
| G - 55 1/2 | - Center of rear spring front bolt, to center of rear spring shackle top pin. |
| H - 69 | - TRAM - Center of gauge hole alongside #1 body bolt, to center of gauge hole at rear sub frame. |
| J - 3 1/2 | - From bottom surface of body floor reinforcement at bolt area, to bottom edge of side rail. |
| K - 35 1/4 | - TRAM - Rear edge of front gauge hole, to center of gauge hole alongside #1 body bolt. |
| L - 14 5/8 | - From end of side rail (lower surface) just forward of X member flange, to datum line. |
| X - | - Locations for mounting #2 and #3 datum gauges. |
| FRONT X | - Adjust sighting pin 4 1/4" below bottom outside edge of side rail. |
| REAR X | - Adjust sighting pin 6 7/16" below bottom surface of sub frame at gauge hole area. |



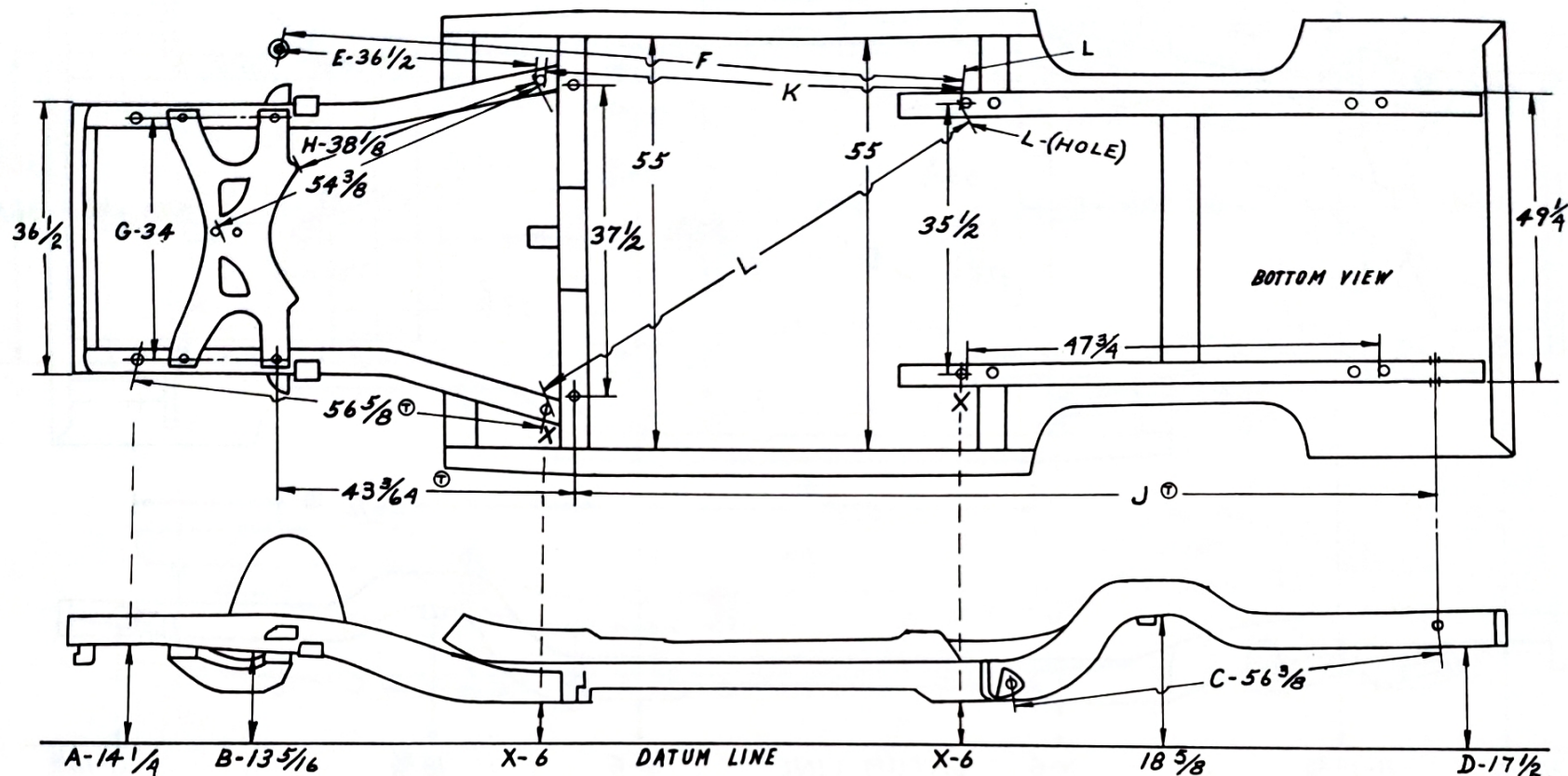
- A - 15 11/16 - Bottom surface of side rail at gauge hole area, to datum line.
 B - 13 3/4 - Bottom surface of side rail (not K frame) immediately behind lower control arm to datum line.
 C - (56 1/2 - Sedans) (57 1/4 - Sta. Wag.) - Center of rear spring front bolt to center of rear spring shackle top pin.
 D - (64 1/16 W.B. 115") (65 7/8 W.B. 117") - From edge to edge of indicated holes.
 E - 36 5/8 - Center of lower ball joint grease plug, to edge of hole.
 F - (86 3/8 W.B. 115") (88 7/8 W.B. 117") - Center of lower ball joint grease plug, to edge of hole.
 G - (48 3/4 W.B. 115") (51 3/8 W.B. 117") - From edge to edge of indicated holes.
 H - 34 - Center to center of forward gauge holes.
 J - (16 3/8 - Sedans) (15 5/8 - Sta. Wag.) - Center of rear spring shackle top pin, to datum line.
 K - 54 - From center line of torsion bar at rear edge of cross member to edge of indicated hole.
 L - 67 1/4 - TRAM - Edge to edge of indicated holes.
 X - - Locations for mounting #2 and #3 datum gauges. Locate sighting pins exactly 6" below the bottom surface of the sub frame rail at the gauge hole areas.

Ⓣ Dimensions require tramming with tram bar level or parallel to plane of frame; other dimensions are direct.

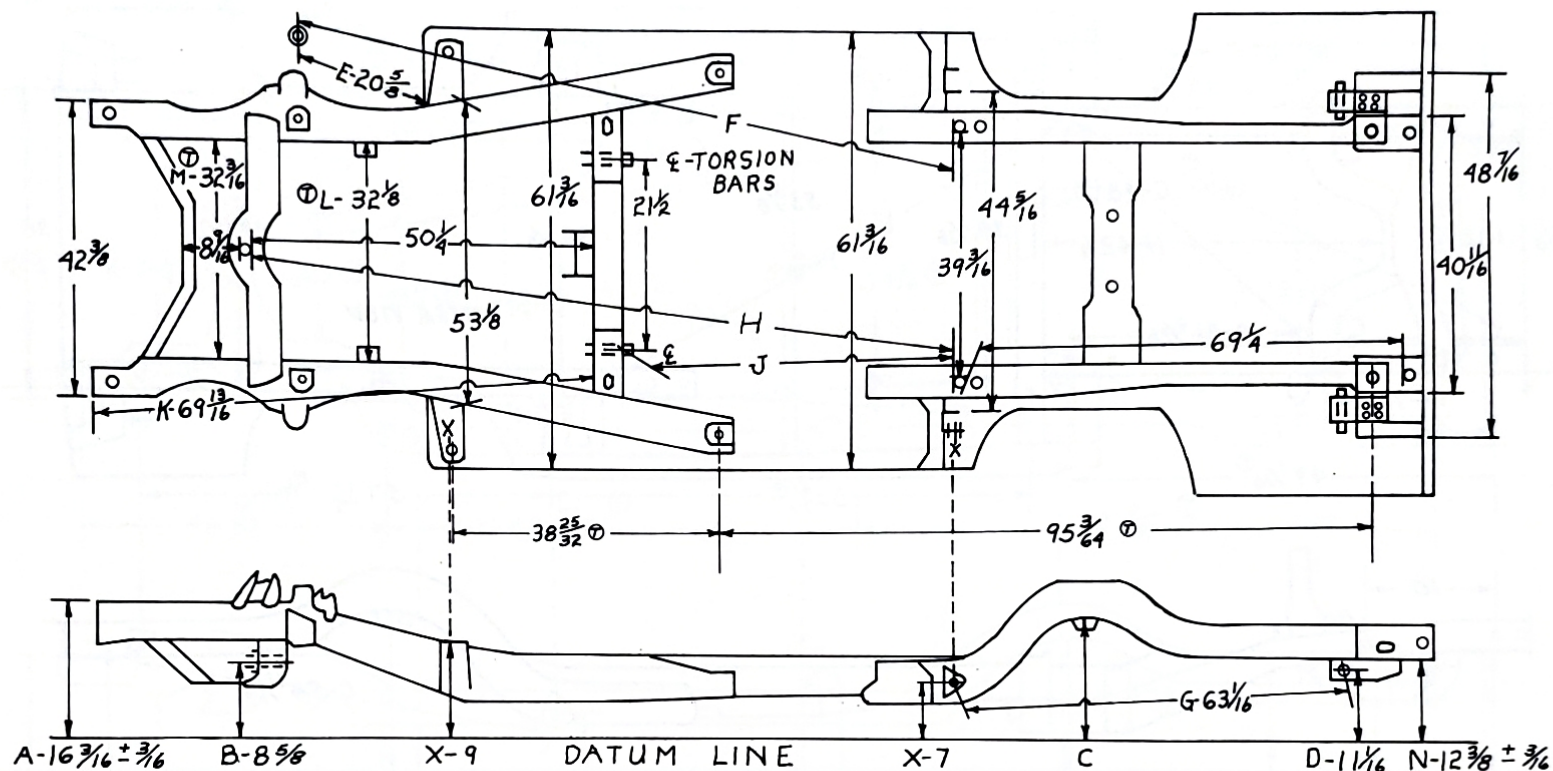
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1974 Plymouth

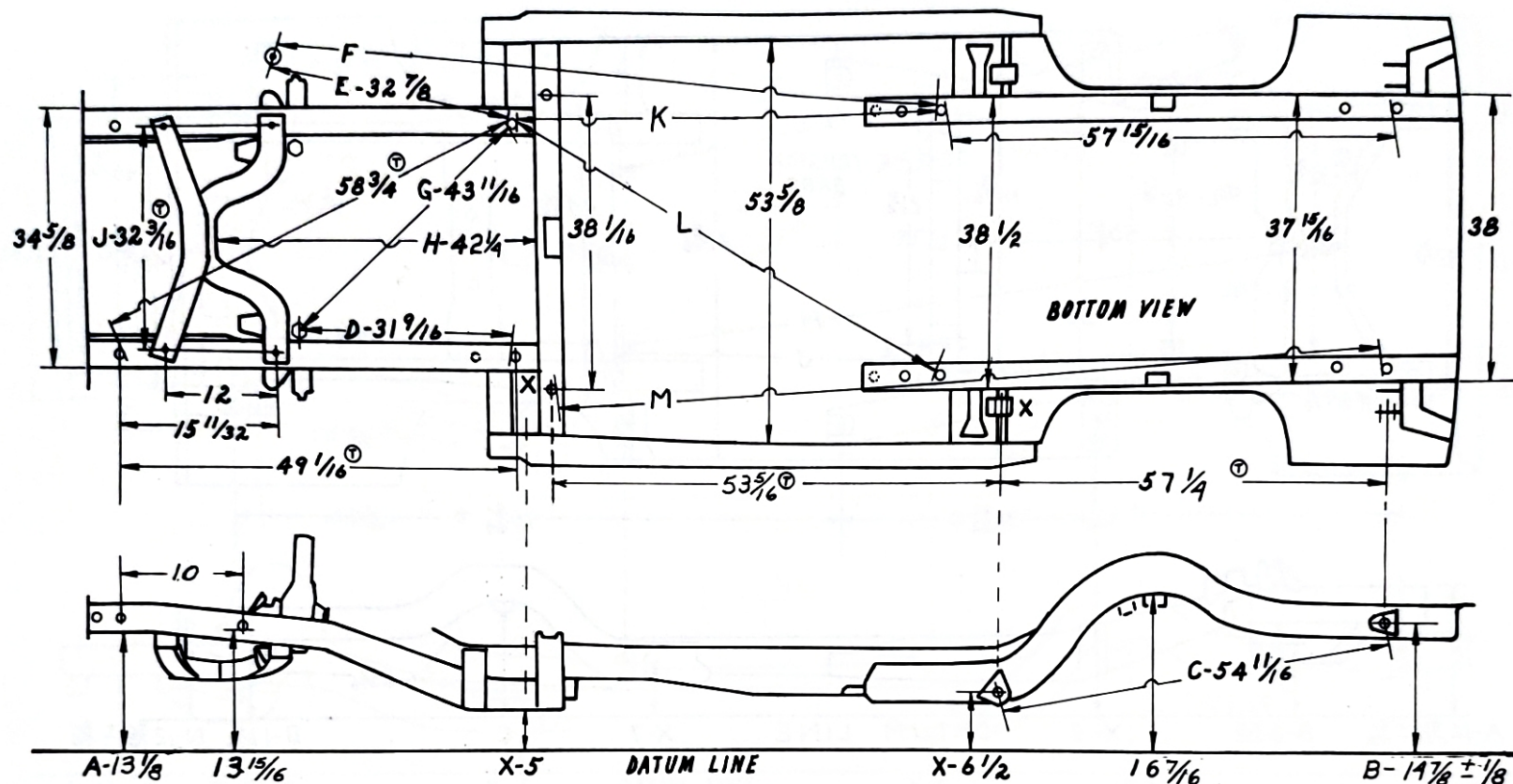
4 DR Satellite & Station Wagon 117" W.B.
 Road Runner and Sebring 115" W.B.
 2 DR Satellite 115" W.B.



- | | |
|--------------|--|
| A - 14 1/4 | - Bottom surface of side rail at gauge hole area, to datum line. |
| B - 13 5/16 | - Bottom surface of side rail at cross member rear attachment to datum line. |
| C - 56 3/8 | - Center of rear spring front bolt to center of rear spring rear shackle top pin. |
| D - 17 1/2 | - Bottom surface of side rail, to datum line. |
| E - 36 1/2 | - Center of grease plug in lower ball joint, to edge of hole. |
| F - 85 3/4 | - Center of grease plug in lower ball joint, to edge of hole. |
| G - 34 | - Center to center of forward gauge holes, also cross member attaching holes. |
| H - 38 1/8 | - From rearmost edge of cross member to edge of side rail gauge hole. |
| J - 99 19/32 | - TRAM - Center of gauge hole to center of rear spring shackle top pin hole. |
| K - 48 1/4 | - Direct from edge of hole to edge of hole. |
| L - 62 1/4 | - Edge of hole to edge of hole. (L-Hole, all dimensions shown to this hole are to forward hole.) |
| X - | - Locations for mounting #2 and #3 datum gauges. Locate sighting pins 6" below the bottom surface of the sub frame rail at the gauge hole areas. |



- A - $(16 \frac{3}{16} - \text{Sedans}) (15 \frac{1}{8} - \text{Sta. Wag.})$ - From top surface of side rail to datum line.
- B - $8 \frac{5}{8}$ - Center of tip of lower control arm pivot shaft, to datum line.
- C - $(17 \frac{1}{4} - \text{Sedans}) (19 \frac{1}{2} - \text{Sta. Wag.})$ - Bottom of side rail alongside rubber bumper to datum line.
- D - $(11 \frac{1}{6} - \text{Sedans}) (13 \frac{5}{8} - \text{Sta. Wag.})$ - From center of rear shackle bottom pin to datum line.
- E - $20 \frac{5}{8}$ - Center of lower ball joint grease plug to forward edge of outrigger at junction of side rail.
- F - $(96 \frac{3}{8} - \text{Sedans}) (98 \frac{3}{4} - \text{Sta. Wag.})$ - Center of lower ball joint grease plug to edge of hole.
- G - $63 \frac{1}{16}$ - Center of rear spring front bolt to center of rear spring shackle bottom pin.
- H - $(105 \frac{1}{8} - \text{Sedans}) (107 \frac{5}{8} - \text{Sta. Wag.})$ - Edge to edge of indicated holes.
- J - $(49 \frac{3}{4} - \text{Sedans}) (52 \frac{1}{8} - \text{Sta. Wag.})$ - From rear edge of cross member beneath center of torsion bar to edge of indicated hole.
- K - $69 \frac{13}{16}$ - Front lower outer edge of side rail to front flange edge of cross member.
- L - $32 \frac{1}{8}$ - TRAM - Between side rails immediately below upper control arm rear mounting brackets.
- M - $32 \frac{3}{16}$ - TRAM - Between side rails at sway bar mountings.
- N - $(12 \frac{3}{8} - \text{Sedans}) (15 \frac{1}{4} - \text{Sta. Wag.})$ - Bottom surface of side rail to datum line.
- X - - Locations for mounting #2 and #3 datum gauges. FRONT X is from bottom surface of body support outrigger. REAR X is from center of rear spring front bolt.

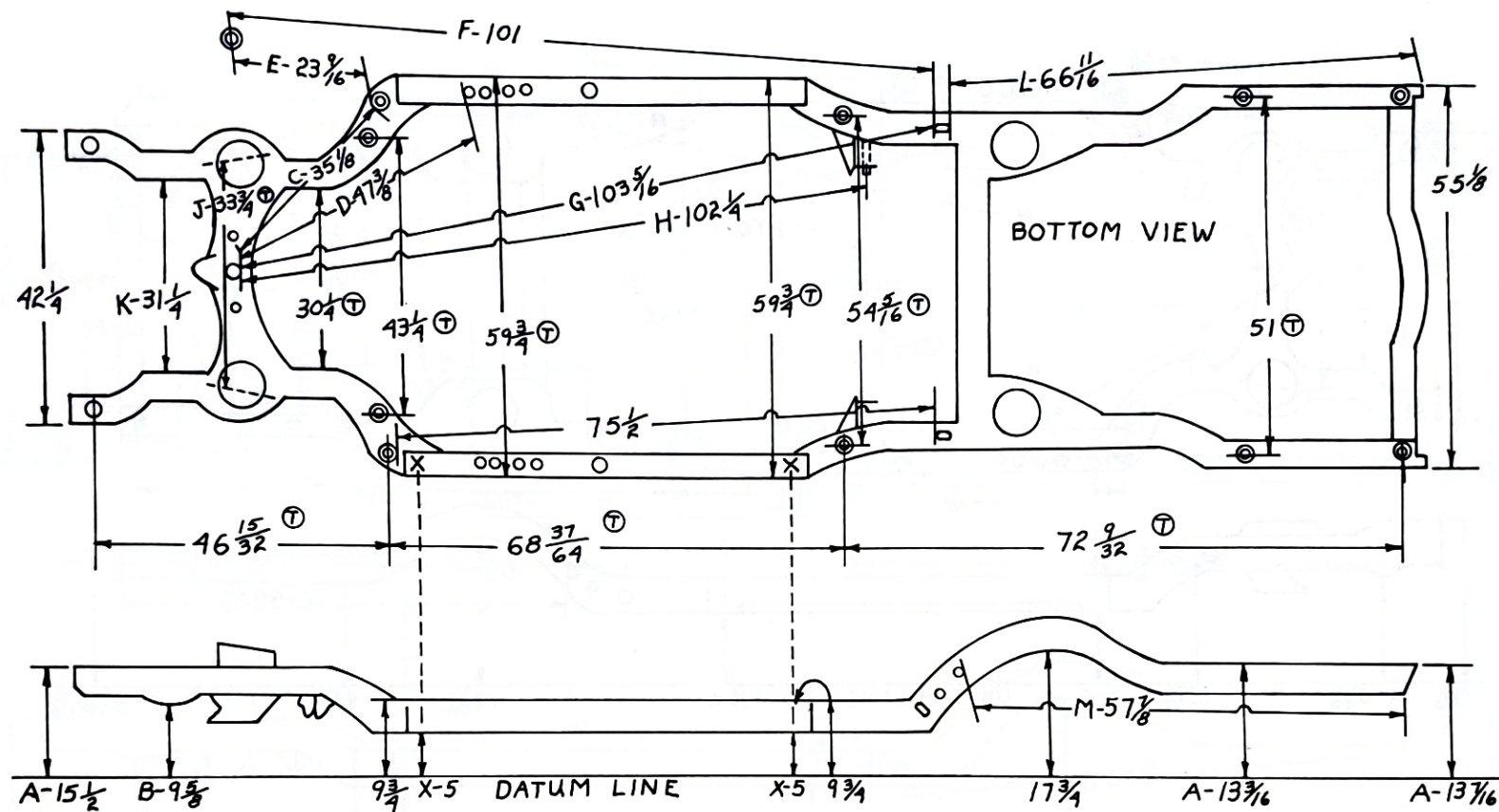


- A - $13 \frac{1}{8}$ - Bottom surface of sub frame (alongside gauge hole), to datum line.
- B - $14 \frac{7}{8}$ (plus or minus $\frac{1}{8}$) - Center of rear spring rear shackle top pin, to datum line.
- C - $54 \frac{11}{16}$ - Center of rear spring front bolt to center of rear spring rear shackle top pin.
- D - $31 \frac{9}{16}$ - Center of head of torsion bar adjusting bolt, to edge of indicated hole.
- E - $32 \frac{7}{8}$ - Center of lower ball joint grease plug, to edge of indicated hole.
- F - (83 W.B. 108") (86 $\frac{1}{8}$ W.B. 111") - Center of lower ball joint grease plug, to edge of indicated hole.
- G - $43 \frac{11}{16}$ - Center of head of torsion bar adjusting bolt to edge of indicated hole.
- H - $42 \frac{1}{4}$ - From rearmost surface of K member cross tube to forward edge of cross member.
- J - $32 \frac{3}{16}$ - TRAM - Center to center of both front and rear K member attaching holes.
- K - (50 $\frac{1}{8}$ W.B. 108") (53 $\frac{1}{4}$ W.B. 111") - Edge to edge of indicated holes.
- L - (60 $\frac{1}{2}$ W.B. 108") (109 W.B. 111") - Edge to edge of indicated holes.
- M - (105 $\frac{3}{4}$ W.B. 108") (109 W.B. 111") - Edge to edge of indicated holes.
- X - Locations for mounting #2 and #3 datum gauges. FRONT X - Adjust sighting pin 5" below bottom edge of sub frame. REAR X - Adjust sighting pin 6 $\frac{1}{2}$ " below center of rear spring front bolt.

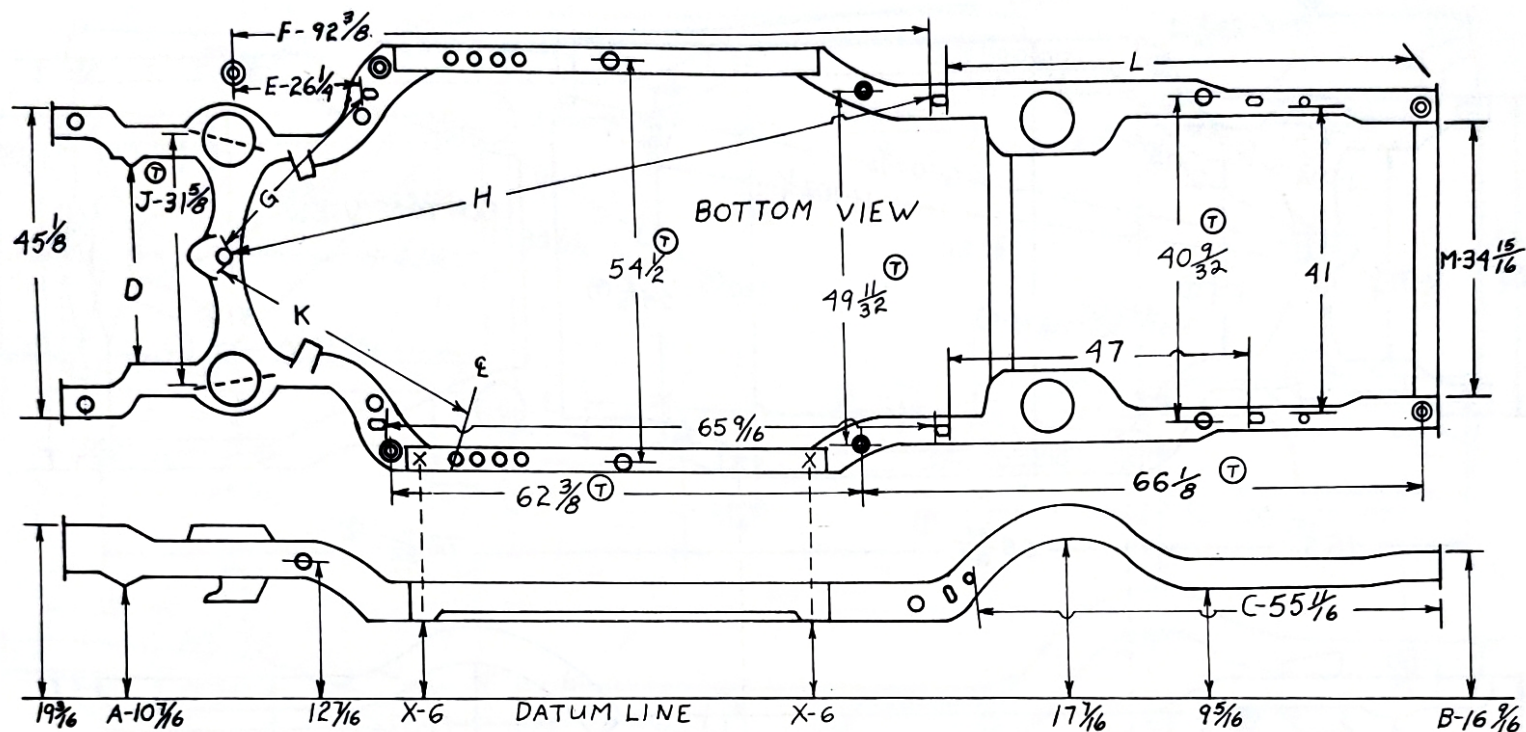
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1974 Plymouth Valiant

2 DR Duster	108" W.B.
4 DR Valiant	111" W.B.
Scamp	111" W.B.

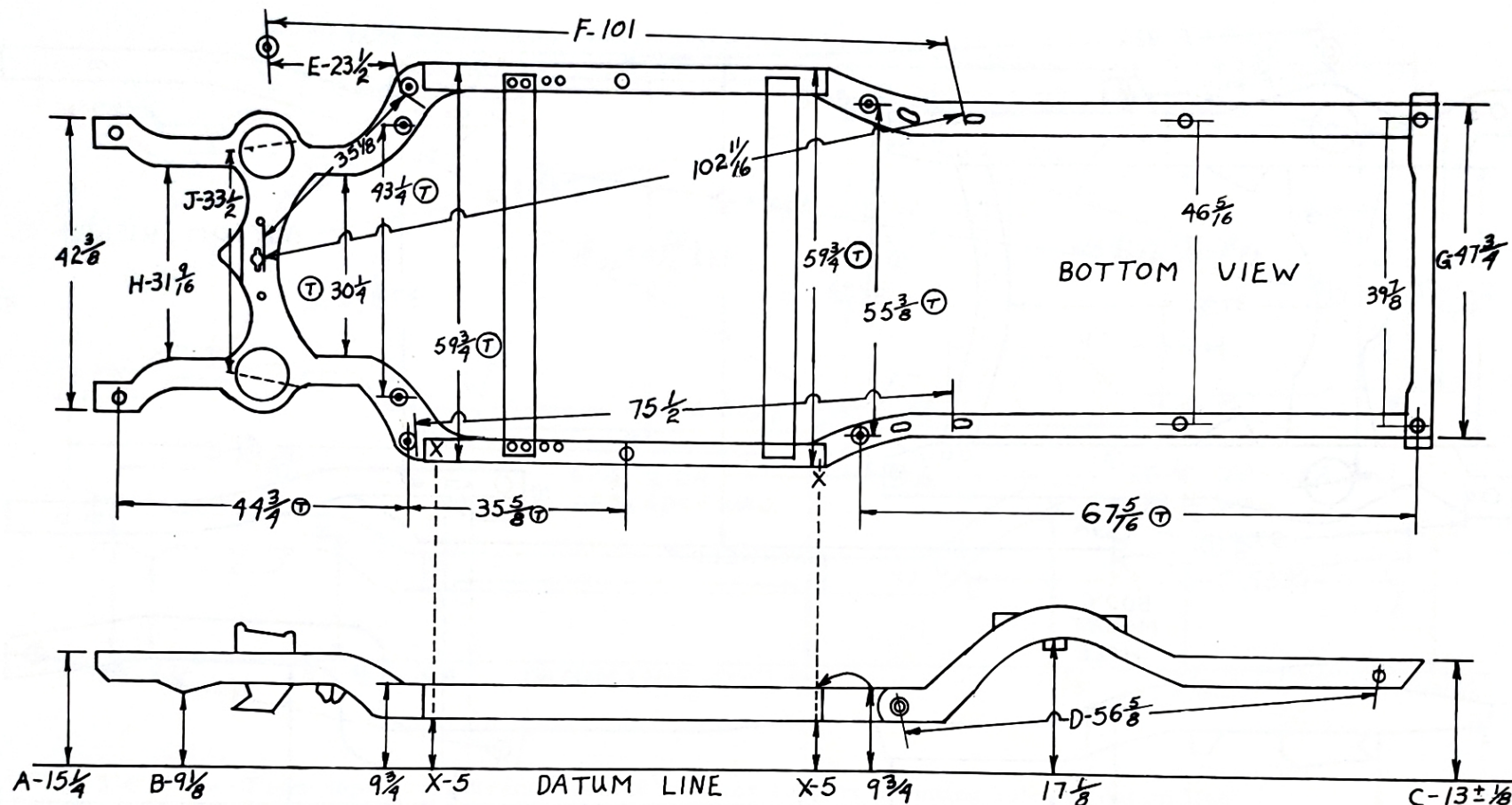


- | | |
|--------------|--|
| A - | - These dimensions are from top surface of frame side rail at all indicated points. |
| B - 9 5/8 | - From lowermost surface of side rail at steering gear mounting area to datum line. |
| C - 35 1/8 | - From edge of cross member hole to edge of body outer access hole. |
| D - 47 3/8 | - Edge of cross member hole to edge of side rail hole. |
| E - 23 9/16 | - Center of ball joint grease plug to edge of outer body access hole. |
| F - 101 | - Center of ball joint grease plug to edge of elongated hole. |
| G - 103 5/16 | - Edge to edge of indicated holes. |
| H - 102 1/4 | - Edge of indicated hole to center of rear torque arm mounting pin. |
| J - 33 3/4 | - TRAM - TOP SIDE - Between upper control arm mounting brackets at FRONT shim area. |
| K - 31 1/4 | - Between side rails at lower steering gear mounting bolt area to idler arm mounting area. |
| L - 66 11/16 | - From edge of elongated hole to lower outer bottom edge of frame side rail. |
| M - 57 7/8 | - From edge of tie down hole to lower outer bottom edge of side rail. |
| X - | - Locations for mounting #2 and #3 datum gauges. Two dimensions given at each location. |
| FRONT X | - 9 3/4" from top surface of side rail or 5" from bottom surface of side rail to datum line. |
| REAR X | - 9 3/4" from top surface of side rail or 5" from bottom surface of side rail to datum line. |

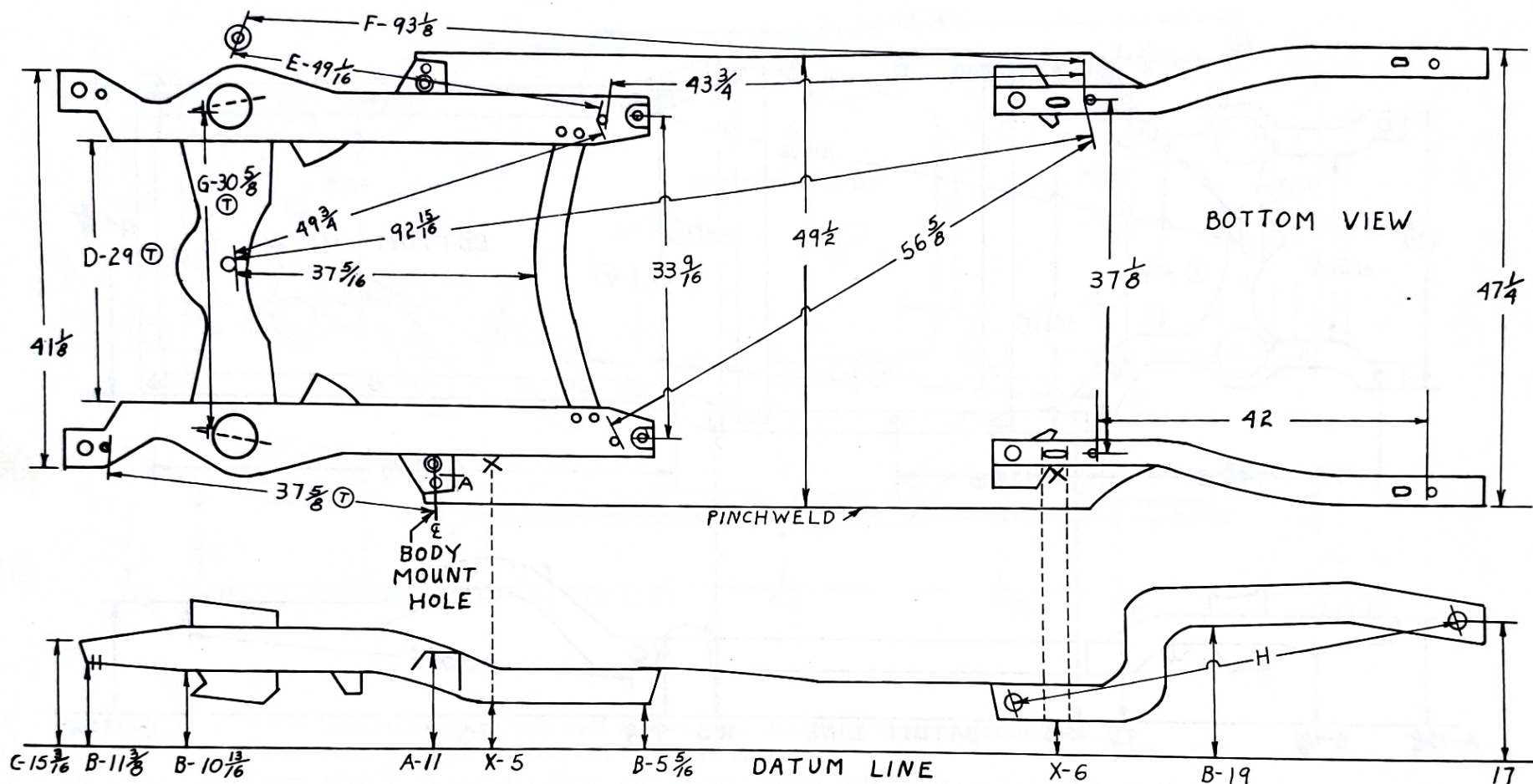


- A - 10 7/16 - From lowest point on side rail at sway bar mounting area to datum line.
- B - 16 9/16 - From rear top edge of side rail to datum line.
- C - 55 11/16 - From edge of flanged tie down hole to rear lower outer bottom flanged edge of side rail.
- D - 28 1/2 - Between side rails at lower steering gear mounting bolt surface to idler arm mounting surface.
- E - 26 1/4 - Center of lower ball joint grease fitting to edge of gauge hole.
- F - 92 3/8 - Center of lower ball joint grease fitting to edge of gauge hole.
- G - 31 3/4 - Edge to edge of indicated holes.
- H - 92 5/8 - Edge to edge of indicated holes.
- J - 31 5/8 - TRAM - Between upper control arm inner shaft seats at front shim contact surface.
- K - 44 1/8 - From edge of cross member hole to center of indicated side rail hole.
- L - 65 3/4 - Edge of gauge hole to lower bottom outer flanged edge of side rail.
- M - 34 15/16 - Between side rails at LOWER inner surfaces.
- X - - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins to 6" below lowermost surface of frame side rail at both locations.

Ⓣ Dimensions require tramming with tram bar adjusted parallel to plane of frame; other dimensions are direct.



- | | |
|-------------|---|
| A - 15 1/4 | - From top front edge of side rail to datum line. |
| B - 9 1/8 | - From lowermost surface of side rail at sway bar mounting area to datum line. |
| C - 13 | - From top surface of side rail (rear) to datum line. |
| D - 56 5/8 | - From center of front shackle pin to center of rear shackle TOP pin. |
| E - 23 1/2 | - From center of gall joint grease plug to edge of outer body bolt access hole. |
| F - 101 | - From center of ball joint grease plug to edge of rear slotted hole. |
| G - 47 3/4 | - Between rear lower outer edge of side rail flanges. |
| H - 31 9/16 | - From steering gear to lower mounting bolt to idler arm mounting surface. |
| J - 33 1/2 | - TOP SIDE - Between upper control arm mounting brackets at FRONT shim area. |
| X - | - Locations for mounting #2 and #3 datum gauges. Two dimensions given at each location. Adjust sighting pins 9 3/4" from top surface of side rail or 5" from bottom surface and adjacent to side rail center section weld, to datum line. |

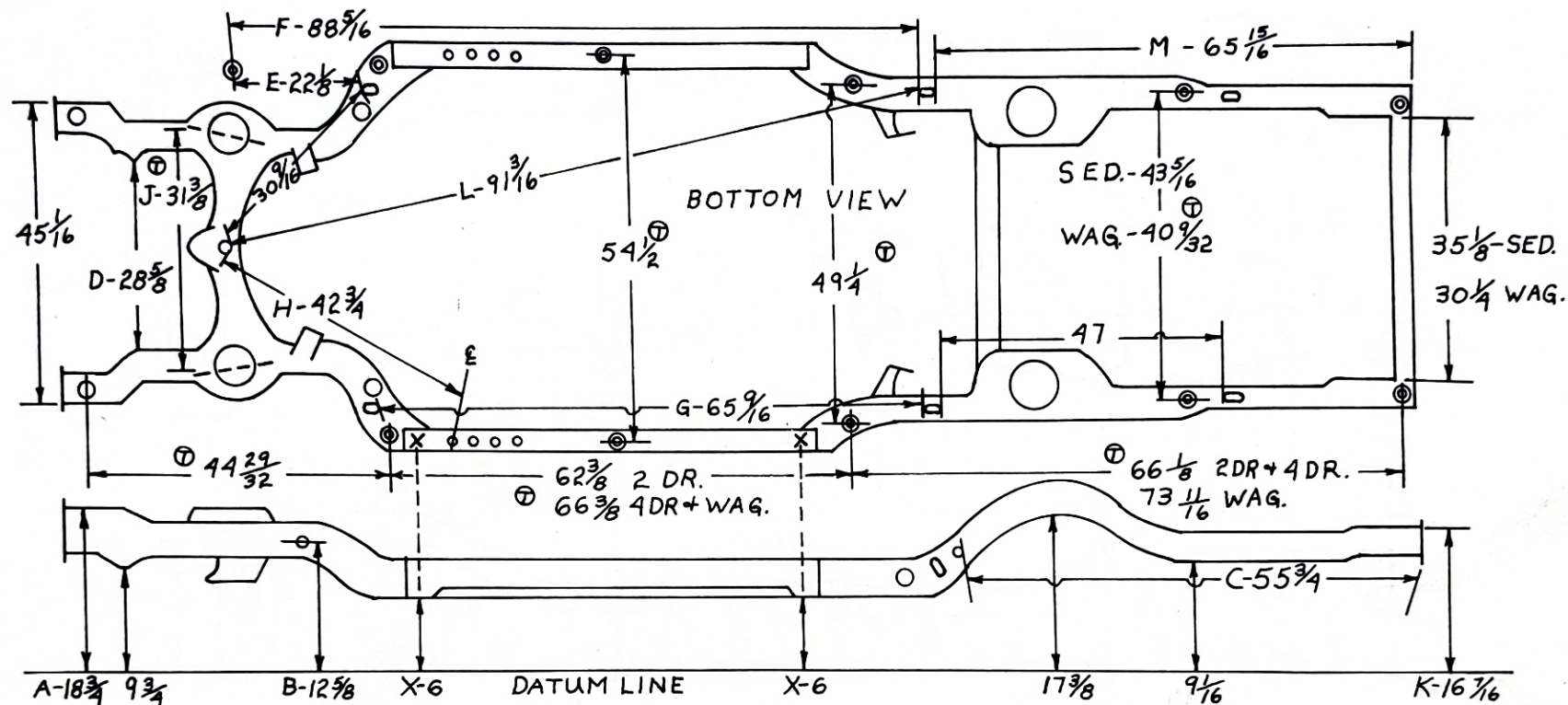


- | | |
|-------------|--|
| A - 11 | - Bottom surface of body mount bracket (between body mount hole and gauge hole), to datum line. |
| B - | - Bottom surface of side rails at indicated points to datum line. |
| C - 15 3/16 | - Top edge (at the tip) of front side rail, to datum line. |
| D - 29 | - Between steering gear lower bolt and idler arm mount. |
| E - 49 1/16 | - Center of lower ball joint grease plug to edge of indicated hole. |
| F - 93 1/8 | - Center of lower ball joint grease plug to edge of indicated hole. |
| G - 30 5/8 | - TRAM - Between upper control arm support brackets at FRONT shim area. |
| H - 54 3/4 | - Center to center of front and rear spring shackle bolts (rear top shackle bolt). |
| X - | - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins: FRONT - 5", REAR - 6", below lowermost surface of side rails at indicated X points. |

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1974 Pontiac Firebird

108" W.B.



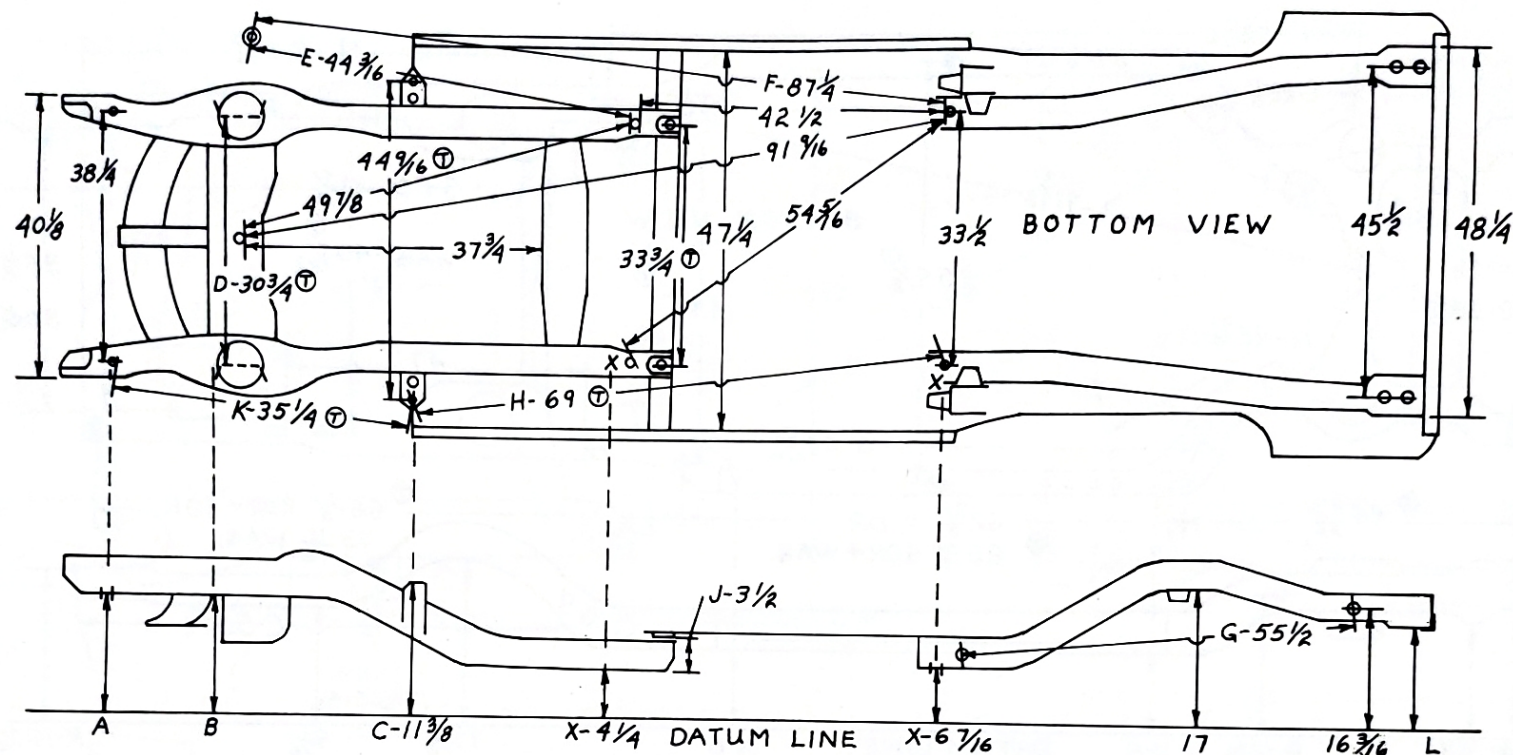
- A - 18 3/4 - From top of rail directly behind radiator support mounting hole, to datum line.
- B - 12 5/8 - From center of flanged tie down hole to datum line.
- C - (55 3/4 - 2 DR & 4 DR) (63 1/8 - Sta.Wag.) - Edge of tie down hole to lower bottom outer flanged edge of side rail.
- D - 28 5/8 - Between side rails at lower steering gear bolt to idler arm mounting surface.
- E - 22 1/8 - Center of lower ball joint grease fitting, to edge of hole.
- F - (88 5/16 - 2 DR) (92 5/16 - 4 DR & Sta.Wag.) - Center of ball joint grease fitting, to edge of hole.
- G - (65 9/16 - 2 DR) (69 5/8 - 4 DR & Sta.Wag.) - Edge to edge of indicated holes.
- H - 42 3/4 - Edge of cross member hole to center of indicated hole.
- J - 31 3/8 - TRAM - TOP SIDE - Between upper control arm inner shaft seats at front shim contact surface.
- K - 16 7/16 - Rear top surface of frame rail (at body bolt area) to datum line.
- L - (91 3/16 - 2 DR) (94 15/16 - 4 DR & Sta.Wag.) - Edge to edge of indicated holes.
- M - (65 15/16 - 2 DR & 4 DR) (73 - Sta.Wag.) - Edge of indicated hole to lower bottom outer edge of side rail.
- X - - Locations for mounting #2 and #3 datum gauges. Adjust sighting pins to 6" below the lowermost surface of the frame side rail at the locations indicated.

⑦ Dimensions require tramping with tram bar level or parallel to plane of body; other dimensions are direct.

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1974 Pontiac LeMans

2 DR	112" W.B.
4 DR Sedans	116" W.B.
Station Wagon	116" W.B.
Grand Am	116" W.B.



- | | |
|-------------|--|
| A - 10 7/16 | - From bottom surface of side rail alongside gauge hole, to datum line. |
| B - 10 7/16 | - From bottom surface of side rail just forward of spring pocket, to datum line. |
| C - 11 3/8 | - Bottom surface of #1 body support bracket (alongside gauge hole), to datum line. |
| D - 30 3/4 | - TRAM - TOP SIDE - Between upper control arm inner shaft seats (at shim contact area). |
| E - 44 3/16 | - Center of lower ball joint grease fitting to edge of hole. |
| F - 87 1/4 | - Center of lower ball joint grease fitting to edge of hole. |
| G - 55 1/2 | - Center of rear spring front bolt, to center of rear spring shackle top pin. |
| H - 69 | - TRAM - Center of gauge hole alongside #1 body bolt, to center of gauge hole at rear sub frame. |
| J - 3 1/2 | - From bottom surface of body floor reinforcement at bolt area, to bottom edge of side rail. |
| K - 35 1/4 | - TRAM - Rear edge of front gauge hole, to center of gauge hole alongside #1 body bolt. |
| L - 14 1/8 | - From end of side rail (lower surface) just forward of X member flange, to datum line. |
| X - | - Locations for mounting #2 and #3 datum gauges. |
| FRONT X | - Adjust sighting pin 4 1/4" below bottom outside edge of side rail. |
| REAR X | - Adjust sighting pin 6 7/16" below bottom surface of sub frame at gauge hole area. |

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1974 Pontiac Ventura II

111" W.B.

METRIC CONVERSION TABLE

FLIP CONVERSION TABLE OUT FOR REFERENCE TO DRAWING YOU ARE USING

<u>INCHES</u>	<u>MM</u>	<u>INCHES</u>	<u>MM</u>	<u>INCHES</u>	<u>MM</u>	<u>FRACTIONS</u>	<u>MM</u>	<u>FRACTIONS</u>	<u>MM</u>
1	25.4	46	1168.4	91	2311.4	1/64	.39	1/32	.79
2	50.8	47	1193.8	92	2336.8	3/64	1.19	3/32	2.38
3	76.2	48	1219.2	93	2362.2	5/64	1.98	5/32	3.96
4	101.6	49	1244.6	94	2387.6	7/64	2.77	7/32	5.55
5	127.0	50	1270.0	95	2413.0	9/64	3.57	9/32	7.14
6	152.4	51	1295.4	96	2438.4	11/64	4.36	11/32	8.73
7	177.8	52	1320.8	97	2463.8	13/64	5.15	13/32	10.31
8	203.2	53	1346.2	98	2489.2	15/64	5.95	15/32	11.90
9	228.6	54	1371.6	99	2514.6	17/64	6.74	17/32	13.49
10	254.0	55	1397.0	100	2540.0	19/64	7.54	19/32	15.08
11	279.4	56	1422.4			21/64	8.33	21/32	16.66
12	304.8	57	1447.8			23/64	9.12	23/32	18.25
13	330.2	58	1473.2			25/64	9.92	25/32	19.84
14	355.6	59	1498.6			27/64	10.71	27/32	21.43
15	381.0	60	1524.0			29/64	11.50	29/32	23.01
16	406.4	61	1549.4			31/64	12.30	31/32	24.60
17	431.8	62	1574.8			33/64	13.09		
18	457.2	63	1600.2			35/64	13.89		
19	482.6	64	1625.6			37/64	14.68	1/16	1.58
20	508.0	65	1651.0			39/64	15.47	3/16	4.76
21	533.4	66	1676.4			41/64	16.27	5/16	7.93
22	558.8	67	1701.8			43/64	17.06	7/16	11.11
23	584.2	68	1727.2			45/64	17.85	9/16	14.28
24	609.6	69	1752.6			47/64	18.65	11/16	17.46
25	635.0	70	1778.0			49/64	19.44	13/16	20.63
26	660.4	71	1803.4			51/64	20.24	15/16	23.81
27	685.8	72	1828.8			53/64	21.03		
28	711.2	73	1854.2			55/64	21.82		
29	736.6	74	1879.6			57/64	22.62		
30	762.0	75	1905.0			59/64	23.41	1/8	3.17
31	787.4	76	1930.4			61/64	24.20	3/8	9.52
32	812.8	77	1955.8			63/64	25.00	5/8	15.87
33	838.2	78	1981.2					7/8	22.22
34	863.6	79	2006.6						
35	889.0	80	2032.0						
36	914.4	81	2057.4						
37	939.8	82	2082.8					1/4	6.35
38	965.2	83	2108.2					3/4	19.05
39	990.6	84	2133.6						
40	1016.0	85	2159.0						
41	1041.4	86	2184.4						
42	1066.8	87	2209.8					1/2	12.70
43	1092.2	88	2235.2						
44	1117.6	89	2260.6						
45	1143.0	90	2286.0						

<u>INCHES</u>	<u>MM</u>	<u>INCHES</u>	<u>MM</u>	<u>INCHES</u>	<u>MM</u>	<u>FRACTIONS</u>	<u>MM</u>	<u>FRACTIONS</u>	<u>MM</u>
1	25.4	46	1168.4	91	2311.4	1/64	.39	1/32	.79
2	50.8	47	1193.8	92	2336.8	3/64	1.19	3/32	2.38
3	76.2	48	1219.2	93	2362.2	5/64	1.98	5/32	3.96
4	101.6	49	1244.6	94	2387.6	7/64	2.77	7/32	5.55
5	127.0	50	1270.0	95	2413.0	9/64	3.57	9/32	7.14
6	152.4	51	1295.4	96	2438.4	11/64	4.36	11/32	8.73
7	177.8	52	1320.8	97	2463.8	13/64	5.15	13/32	10.31
8	203.2	53	1346.2	98	2489.2	15/64	5.95	15/32	11.90
9	228.6	54	1371.6	99	2514.6	17/64	6.74	17/32	13.49
10	254.0	55	1397.0	100	2540.0	19/64	7.54	19/32	15.08
11	279.4	56	1422.4			21/64	8.33	21/32	16.66
12	304.8	57	1447.8			23/64	9.12	23/32	18.25
13	330.2	58	1473.2			25/64	9.92	25/32	19.84
14	355.6	59	1498.6			27/64	10.71	27/32	21.43
15	381.0	60	1524.0			29/64	11.50	29/32	23.01
16	406.4	61	1549.4			31/64	12.30	31/32	24.60
17	431.8	62	1574.8			33/64	13.09		
18	457.2	63	1600.2			35/64	13.89		
19	482.6	64	1625.6			37/64	14.68	1/16	1.58
20	508.0	65	1651.0			39/64	15.47	3/16	4.76
21	533.4	66	1676.4			41/64	16.27	5/16	7.93
22	558.8	67	1701.8			43/64	17.06	7/16	11.11
23	584.2	68	1727.2			45/64	17.85	9/16	14.28
24	609.6	69	1752.6			47/64	18.65	11/16	17.46
25	635.0	70	1778.0			49/64	19.44	13/16	20.63
26	660.4	71	1803.4			51/64	20.24	15/16	23.81
27	685.8	72	1828.8			53/64	21.03		
28	711.2	73	1854.2			55/64	21.82		
29	736.6	74	1879.6			57/64	22.62		
30	762.0	75	1905.0			59/64	23.41	1/8	3.17
31	787.4	76	1930.4			61/64	24.20	3/8	9.52
32	812.8	77	1955.8			63/64	25.00	5/8	15.87
33	838.2	78	1981.2					7/8	22.22
34	863.6	79	2006.6						
35	889.0	80	2032.0						
36	914.4	81	2057.4						
37	939.8	82	2082.8					1/4	6.35
38	965.2	83	2108.2					3/4	19.05
39	990.6	84	2133.6						
40	1016.0	85	2159.0						
41	1041.4	86	2184.4						
42	1066.8	87	2209.8					1/2	12.70
43	1092.2	88	2235.2						
44	1117.6	89	2260.6						
45	1143.0	90	2286.0						



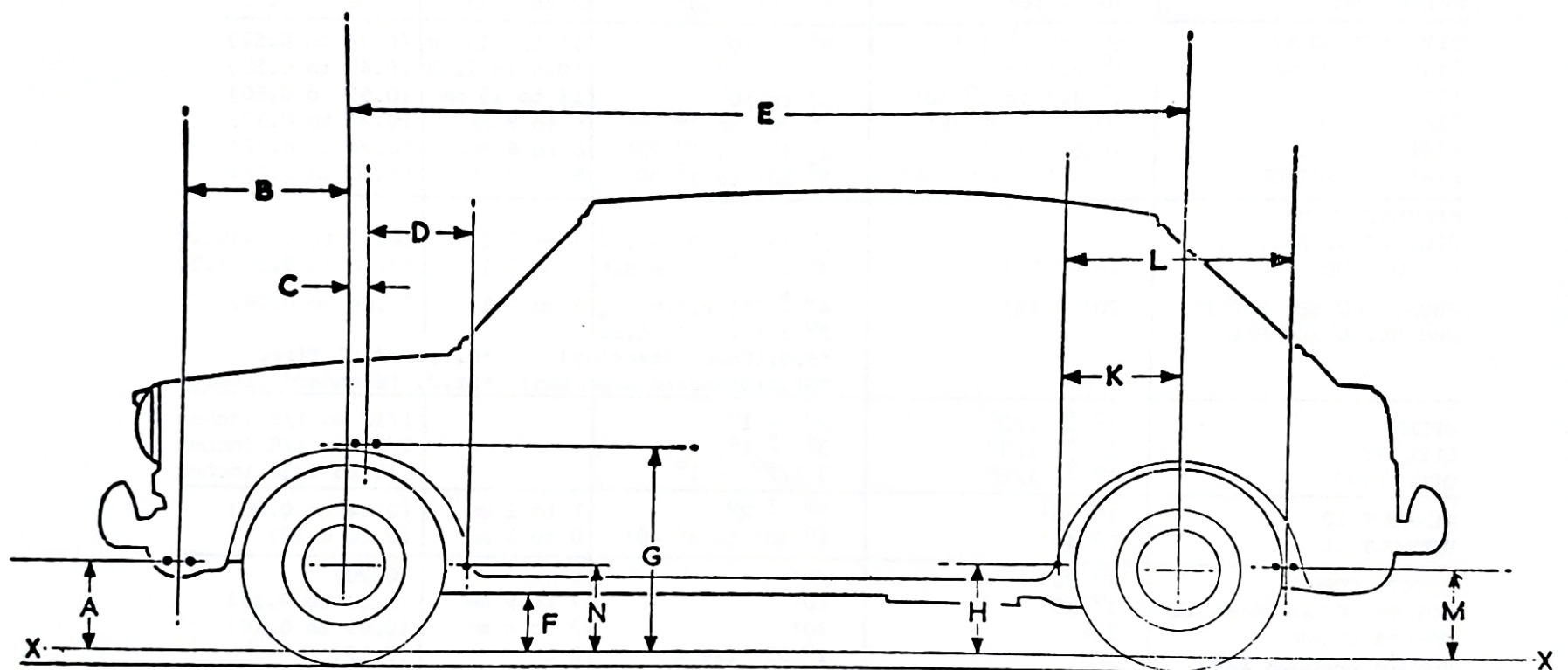
FOREIGN IMPORT SECTION



MAKE	CAMBER	CASTER	TOE IN	
			Millimeters	Inches
CAPRI	NOT ADJUSTABLE 0° 30' to 1° 30'	NOT ADJUSTABLE 30' ± 15'		1/8 inch
DATSUN PL 510	1°	1° 40'	6 to 9 mm	(0.24 to 0.36)
DATSUN 1200	1° .05' ± 30'	1° 10' ± 30'	5 ± 1 mm	(0.16 to 0.24)
DATSUN 240 Z	50' ± 30'	2° 55' ± 30'	2 to 5 mm	(0.08 to 0.20)
FIAT 850 SEDAN	30' to 1° 10'	8° to 10°	11 to 13 mm	(0.44 to 0.52)
FIAT 850 COUPE	1° 20' to 2°	8° to 10°	10.5 to 12.5	(0.42 to 0.50)
FIAT 850 SPIDER	1° 30' to 2° 10'	8° to 10°	13 to 15 mm	(0.52 to 0.60)
FIAT 124 SEDAN	-0.5' to 0° 35'	2° 20' to 3°	6 to 8 mm	(0.24 to 0.32)
FIAT 124 COUPE	-0.5' to 0° 35'	2° 40' to 3° 20'	6 to 8 mm	(0.24 to 0.32)
FIAT 124 SPIDER	-0° 15' to 0° 30'	2° 50' to 3° 30'	5 to 7 mm	(0.20 to 0.28)
MERCEDES BENZ 220, 220D, 230, 250 & 250 COUPE	15' - 10'	2° 15' ± 20' St.S.* 3° 15' ± 20' P.S.*	4 mm ± 1 3 mm ± 1	(0.12 to 0.20)St.T.* (0.08 to 0.16)R.T.*
280S, 280 SE, 280SEL, 280 SL, & 300 SEL	20' - 15'	4° ± 15' P.S.* 3° 30' ± 15' St.S.*	2 mm ± 1	(0.04 to 0.09)
		*P.S.(Power steering) *R.T.(Radial Tires) *St.S(Standard steering) *St.T. (Standard Tires)		
OPEL	1° ± 1/2°	2° ± 1°		1/32 to 1/8 inches
OPEL GT	1° ± 1/2°	3° ± 1°		1/32 to 1/8 inches
OPEL 1900	1° ± 1/2°	3 1/2° ± 1°		1/8 to 3/16 inches
RENAULT 10	1° 40'	9° ± 2°	1 to 2 mm	(0.04 to 0.08)
RENAULT 16	0° 45'	1° 40' to 3° 40'	0 to 3 mm	(0 to 0.12)
TOYOTA CORONA	1° 20'	20'	5 mm	(0.20)
TOYOTA CORONA MARK II	1° 15'	10'	7 to 9 mm	(0.28 to 0.16)
TOYOTA CROWN	30'	30'	2 to 4 mm	(0.09 to 0.16)
TOYOTA CAROLLA 1200	50'	1° 55' (sedan & coupe) 1° 40' (wagon)	3 mm 3 mm	(0.12) (0.12)
TRIUMPH SPITFIRE	3° ± 1°	3 1/2° ± 1°		1/16 to 1/8 inches
TRIUMPH GT 6	2 3/4° ± 1°	3 1/2° ± 1°		1/16 to 1/8 inches
TRIUMPH TR 6	1/2° ± 1°	2 3/4° ± 1°		1/16 to 1/8 inches
VOLKSWAGEN				
TYPE 1	30' ± 20'	3° 21' ± 1°	30' ± 15'	
TYPE 2	1° 20' ± 20'	2° ± 35'	30' ± 10'	
TYPE 3	40' ± 15'	3° ± 40'	15' ± 15'	
TYPE 4	1° 20' ± 20'	4° ± 40'	40' ± 15'	
VOLVO (ALL)	0° to 1/2°	0° to 1°	0 to 4 mm	(0 to 0.16)

Wheel Alignment Specifications

VERTICAL ALIGNMENT CHECK



A 5432

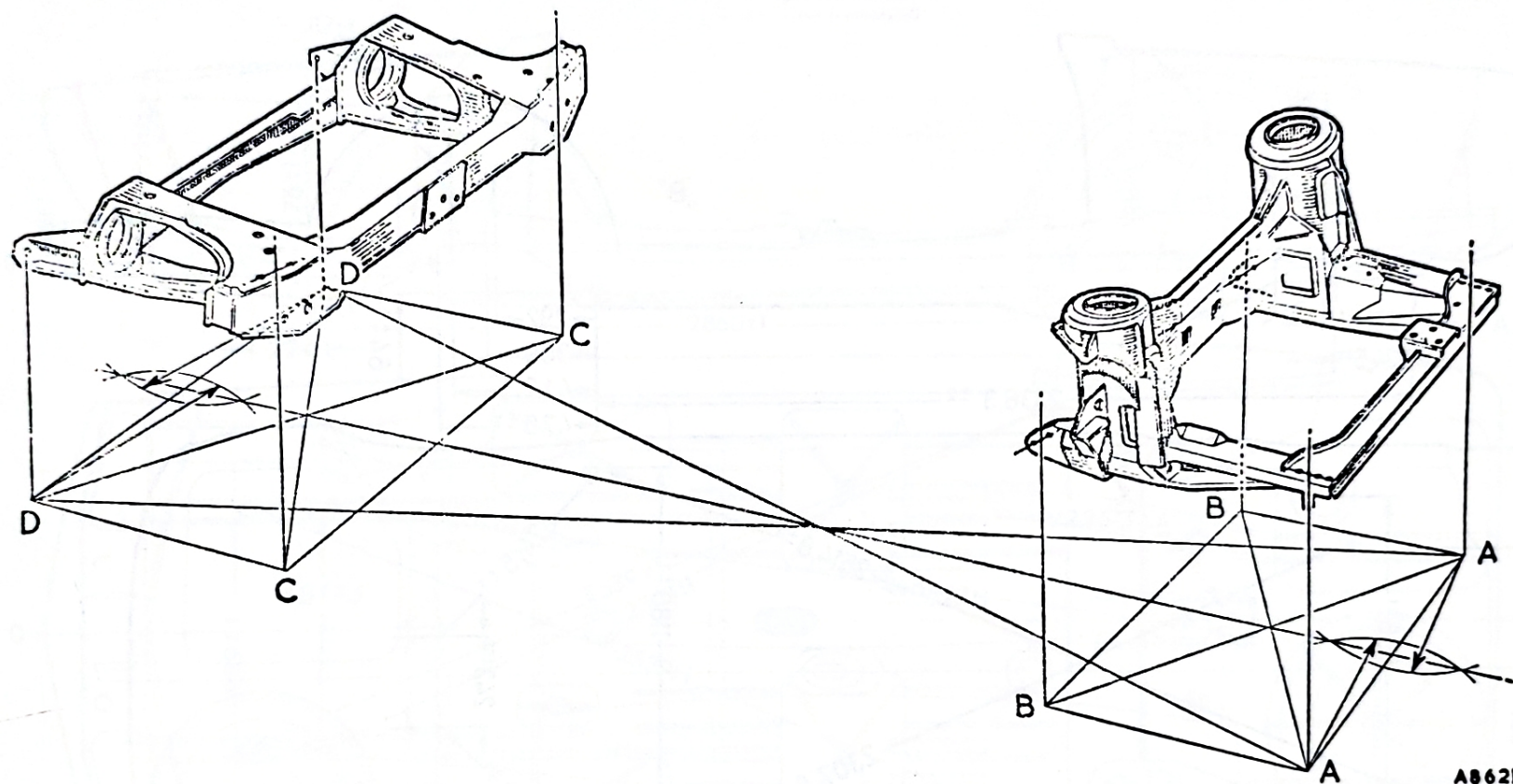
Code letter	Dimension	Location
A	9 $\frac{7}{32}$ in. (234.1 mm.)	Front sub-frame mounting (front)
B	15 $\frac{5}{16}$ in. (396.9 mm.)	Front sub-frame mounting (front) to wheel centre
C	3 $\frac{3}{64}$ in. (93.2 mm.)	Wheel centre to tower mounting
D	5 $\frac{5}{32}$ in. (130.9 mm.)	Front sub-frame mounting (tower) to front sub-frame mounting (rear)
E	93 $\frac{1}{2}$ in. (2374 mm.)	Wheelbase
F	5 $\frac{1}{4}$ in. (146 mm.)	Body sill to datum line
G	17 $\frac{1}{2}$ in. (444.5 mm.)	Tower mounting to datum line

Code letter	Dimension	Location
H	6 $\frac{1}{8}$ in. (168.2 mm.)	Rear sub-frame mounting (front) to datum line
K	15 $\frac{1}{32}$ in. (382 mm.)	Rear sub-frame mounting (front)—body face to wheel centre
L	24 $\frac{13}{32}$ in. (620 mm.)	Rear sub-frame mounting (front)—body face to rear sub-frame mounting (rear)
M	5 $\frac{11}{16}$ in. (144.4 mm.)	Rear sub-frame mounting (rear)—body face to datum line
N	5 in. (127 mm.)	Front sub-frame mounting (rear) to datum line

X—X=Datum

Austin America

HORIZONTAL ALIGNMENT CHECK



TRANSVERSE DIMENSIONS

A-A
Width between centres of the front
sub-frame front mounting set
screws $30\frac{7}{16}$ in. (773-11 mm.)

B-B
Width between centres of the front
sub-frame rear mounting set
screws $28\frac{1}{4}$ in. (717-35 mm.)

C-C
Width between centres of the rear
sub-frame front mounting set
screws $42\frac{1}{4}$ in. (1073-15 mm.)

D-D
Width between centres of the rear
sub-frame rear mounting set
screws $43\frac{7}{16}$ in. (1103-31 mm.)

A preliminary check of the alignment can best be carried out by the system of diagonals and measurement checks from points projected onto a level floor by means of a plumb-bob.

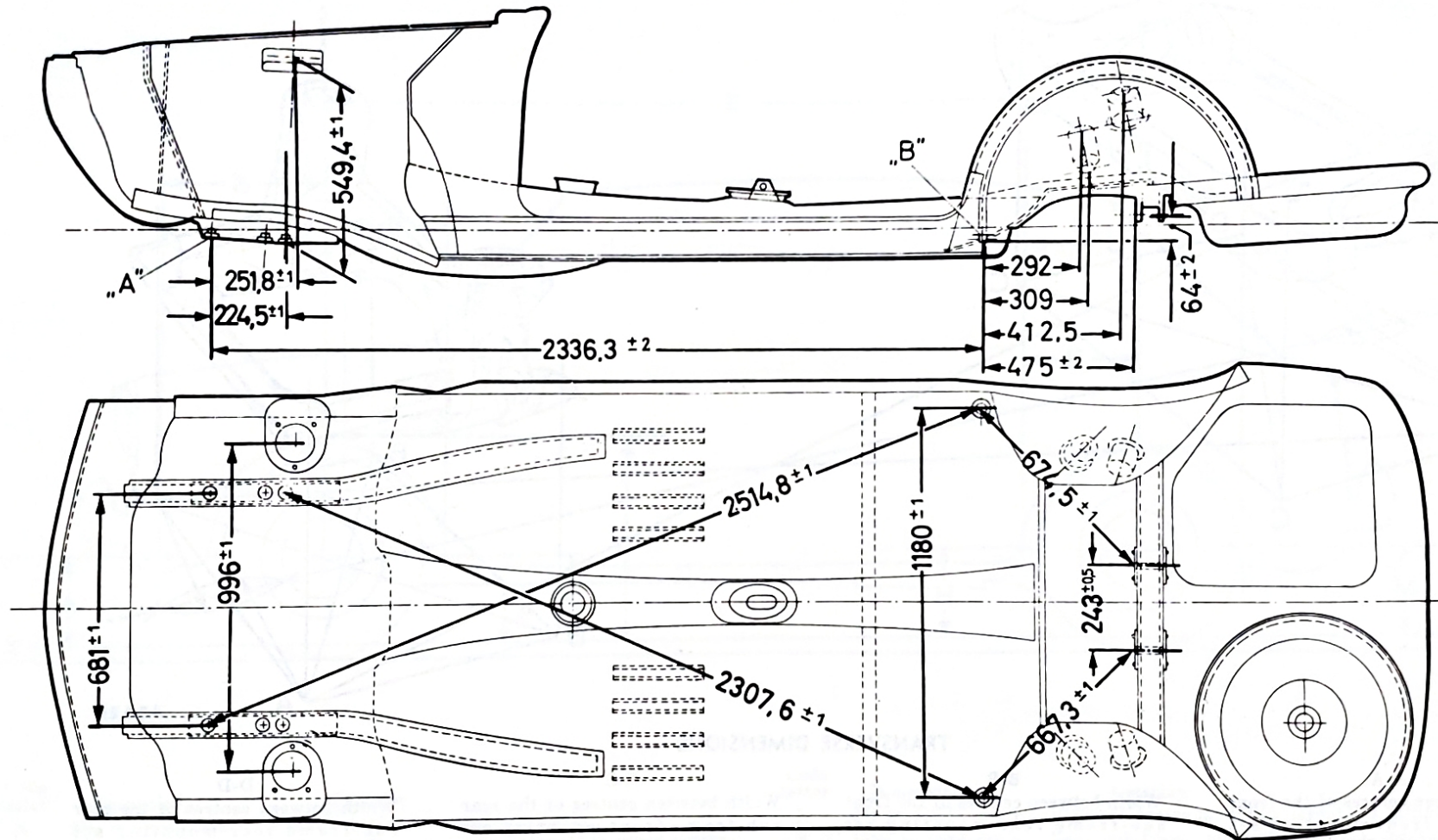
A centre-line can then be established by means of a large pair of compasses and any deviation from correct alignment will be evident by failure of the diagonals to intersect on the centre-line or by considerable deviations in the measurements.

5.090 BMW 1600-2 Chassis dimensions

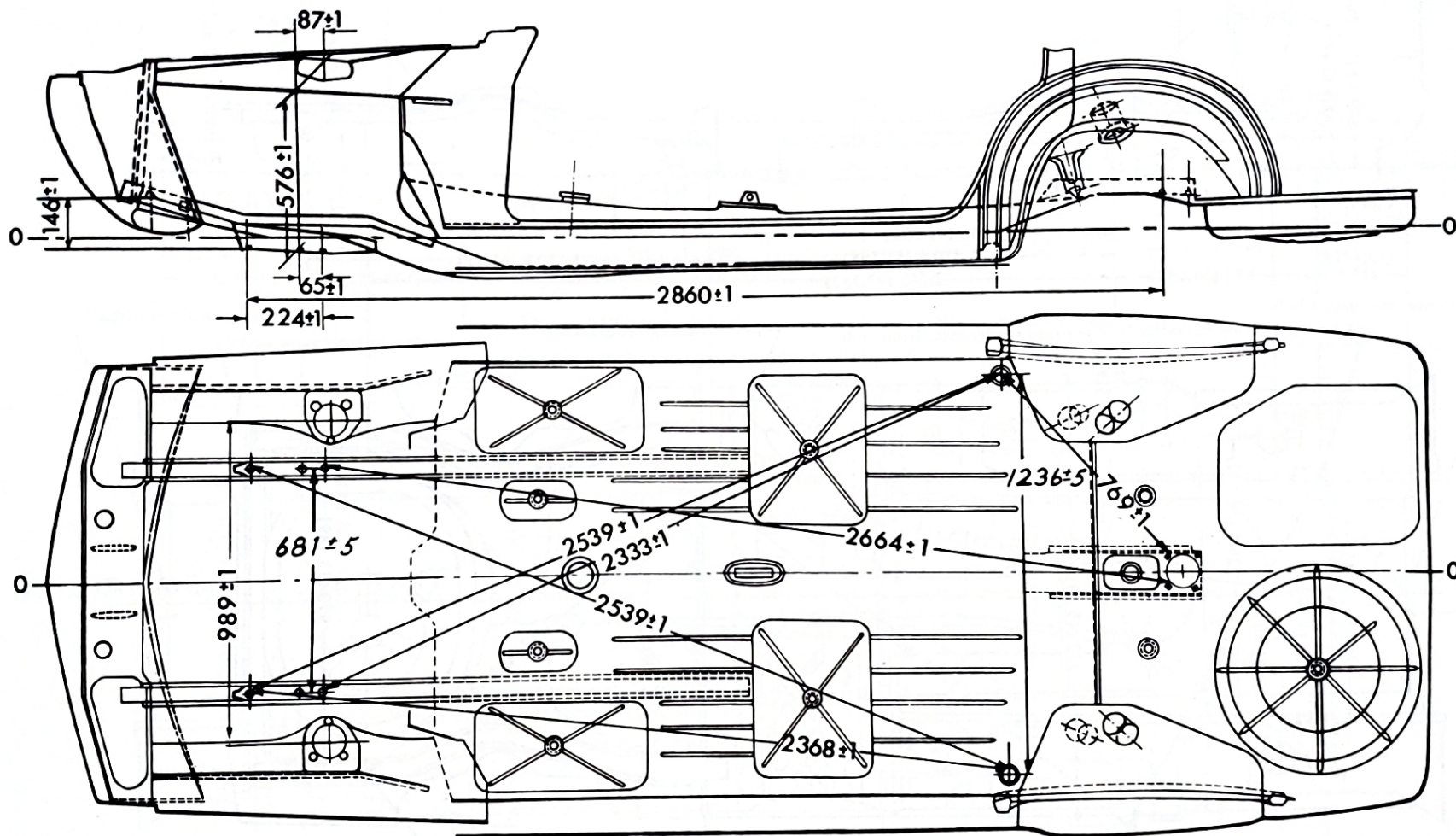
A=Front axle mounting

B=Rear axle mounting

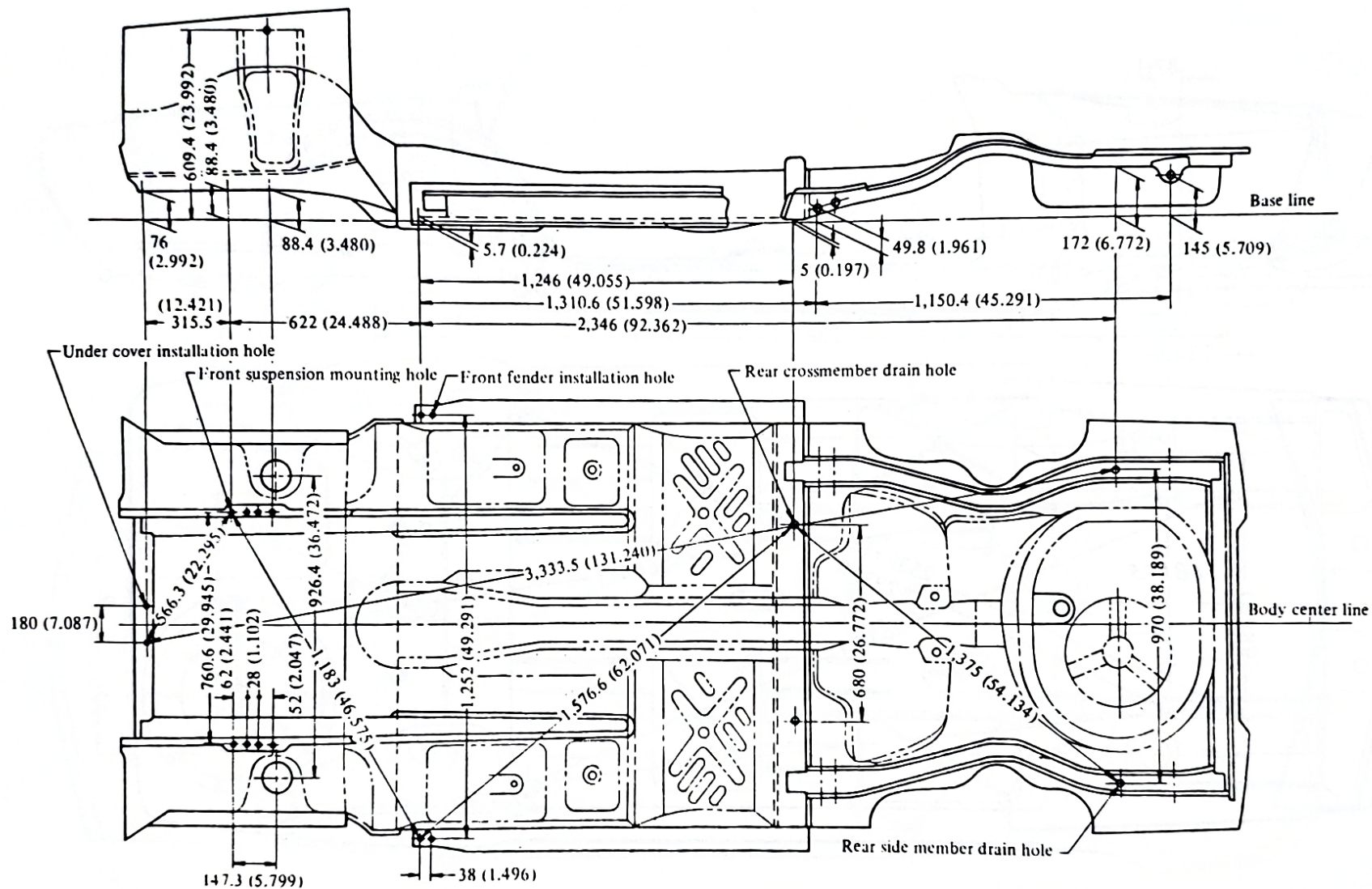
Dimensions in mm



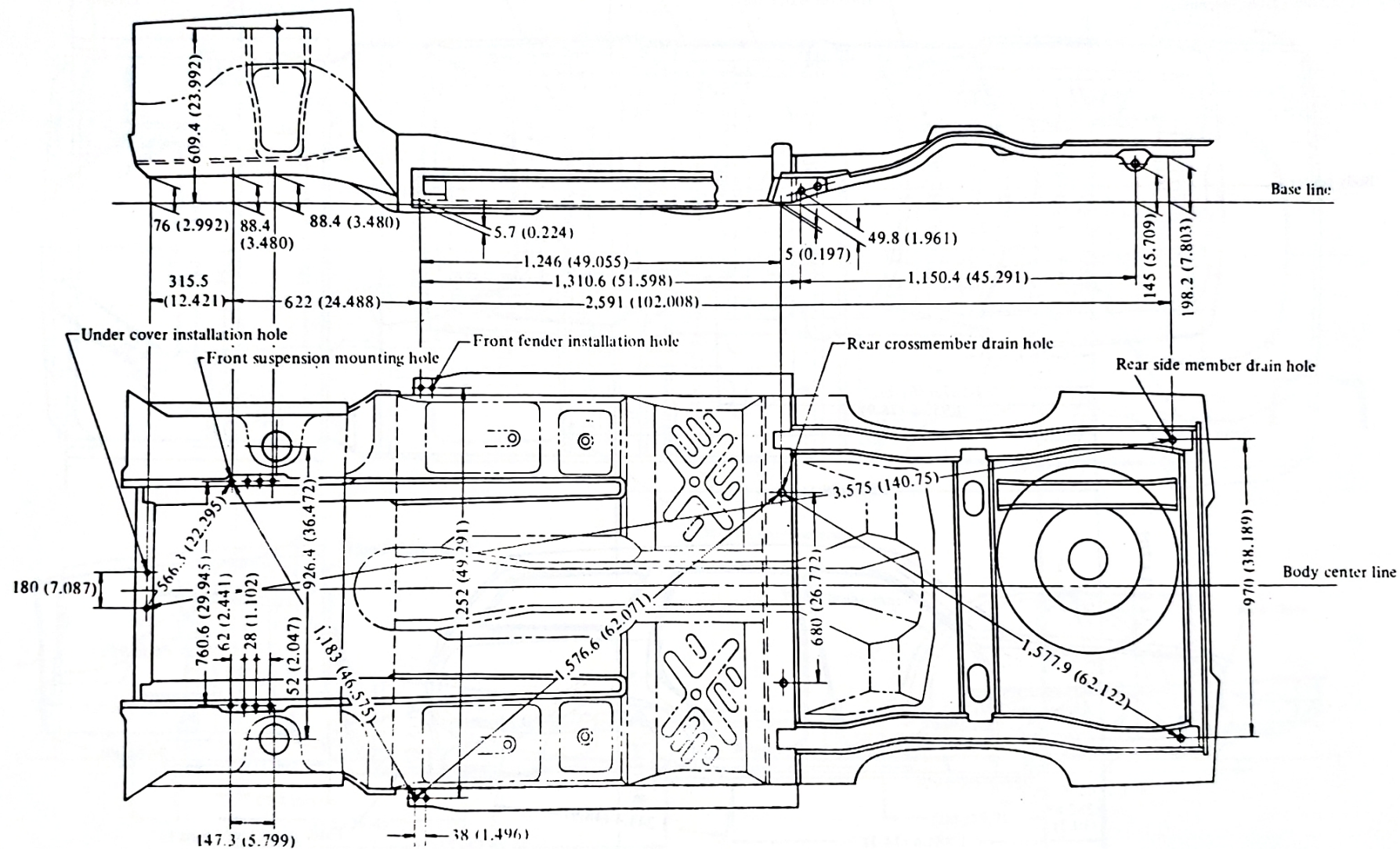
BMW - Model 1600



BMW - Models 1800 and 2000

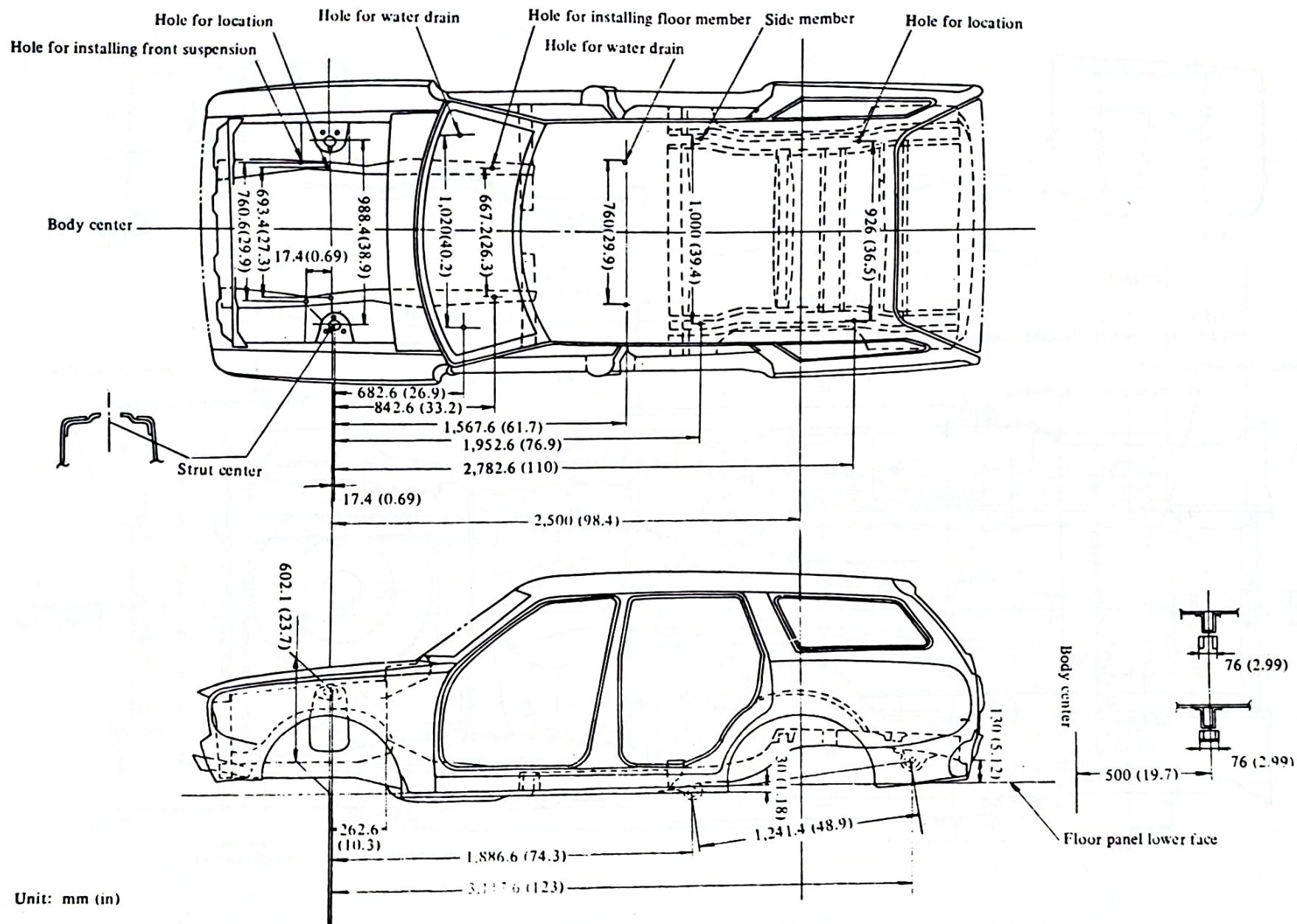


Datsun B210 Sedan

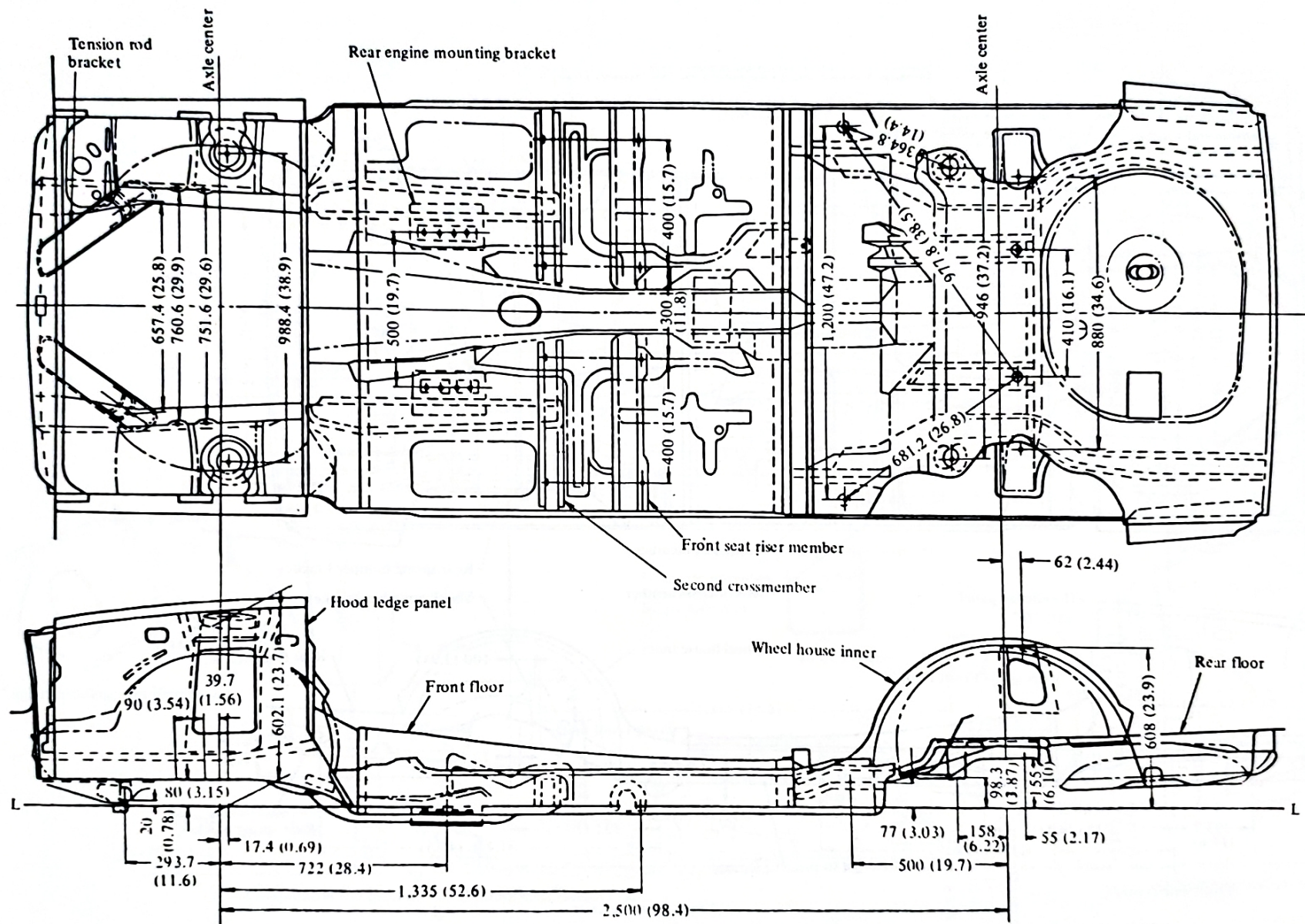


Unit: mm (in)

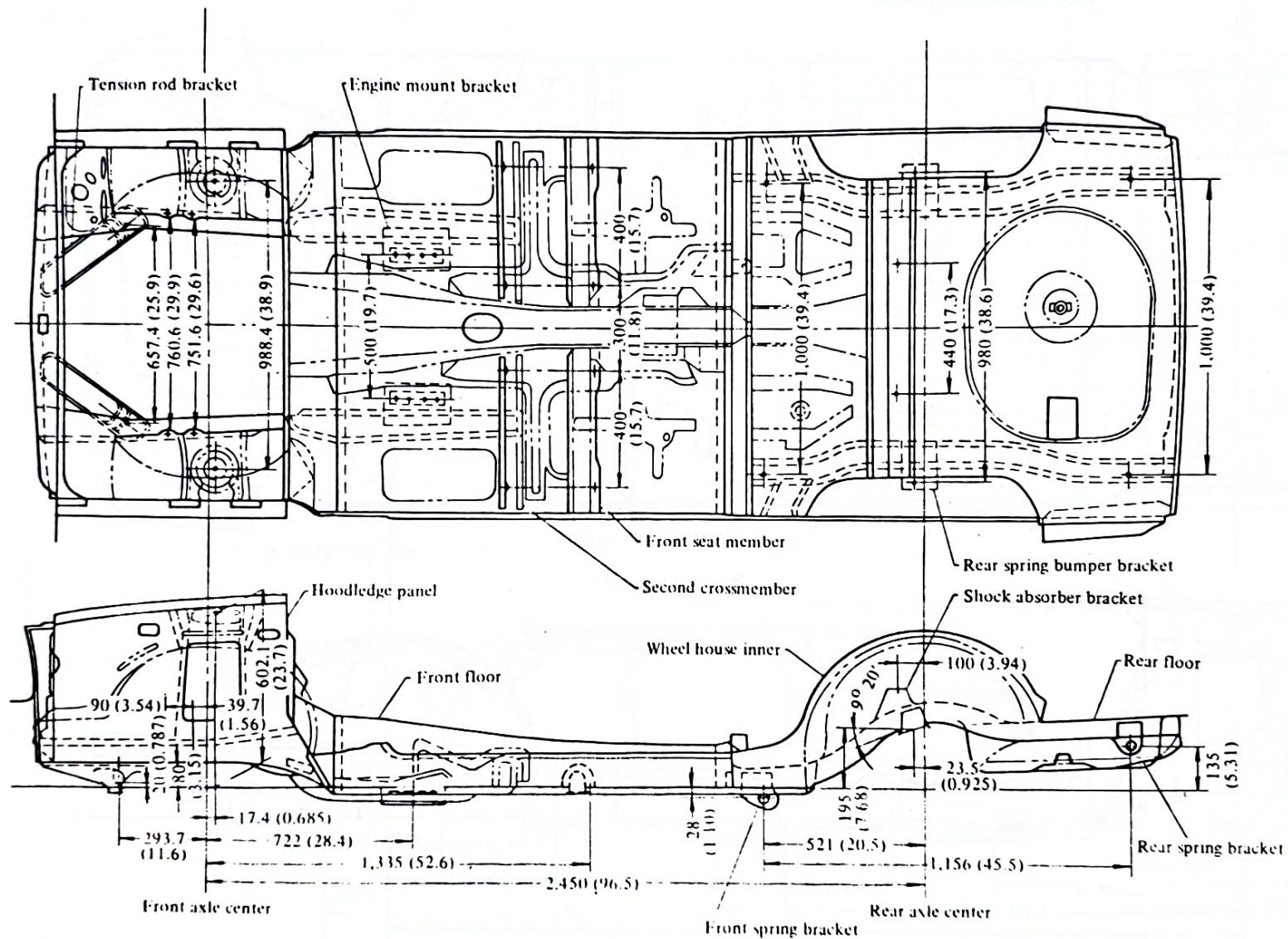
Datsun B210 Coupe



Datsun PL610 Station Wagon

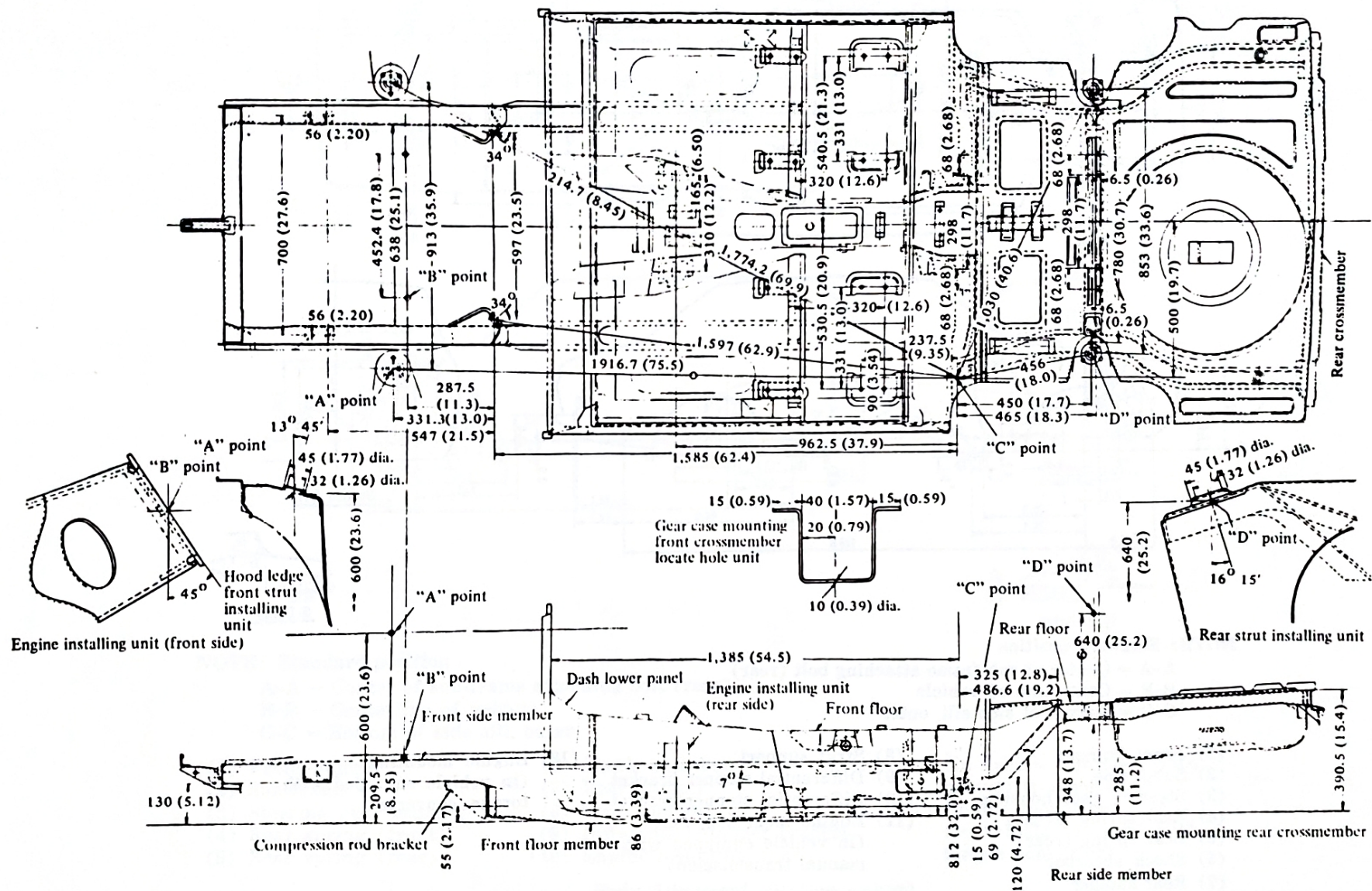


Datsun PL610 Sedan & Hardtop



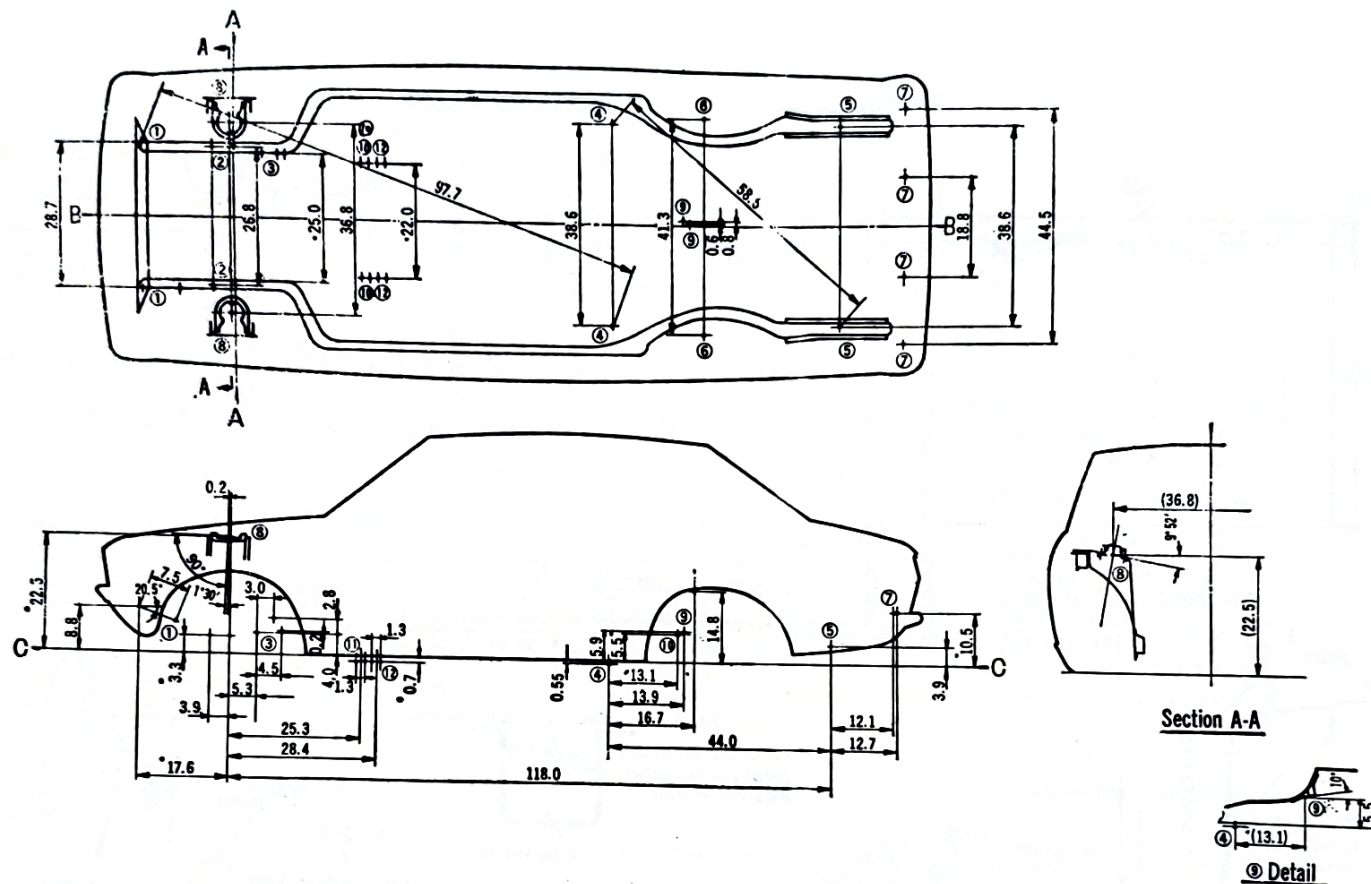
Unit : mm (in)

Datsun PL710



Unit: mm (in)

Datsun 240Z



NOTE: Standard position

A-A = Center of sub-frame attaching bolt (rear)

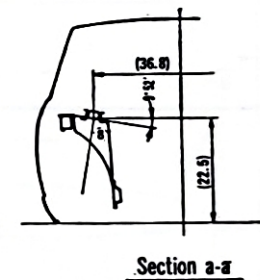
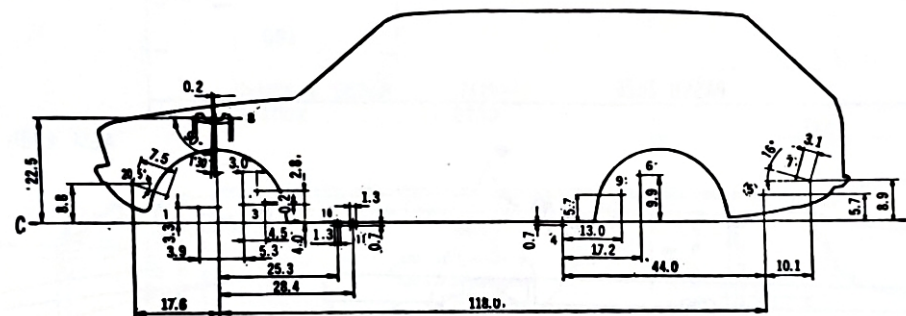
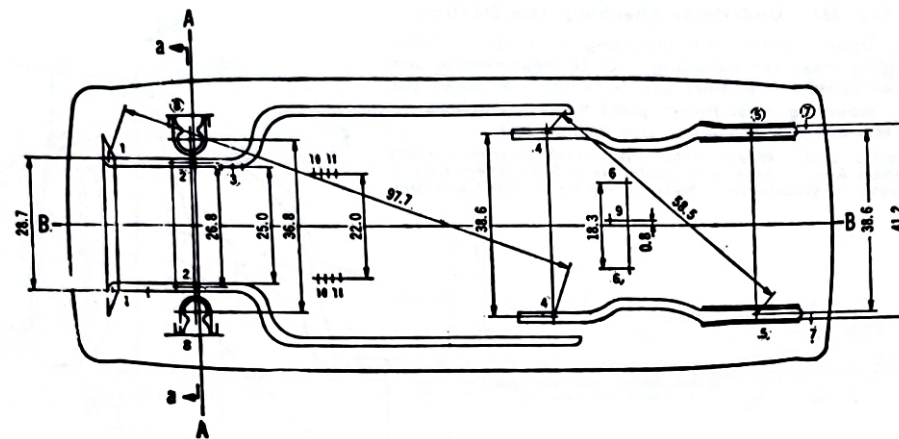
B-B = Centerline of vehicle

C-C = Bottom of side sill, outer

- | | | |
|---------------------------|-----------------------------------|---------------------------|
| (1) Front bumper | (8) Strut support | (12) Engine mounting |
| (2) Sub-frame | (9) Differential stopper bracket | (in vehicle equipped with |
| (3) Steering gear housing | (10) Differential stopper bracket | torque converter) |
| (4) Rear spring (front) | (11) Engine mounting, rear | |
| (5) Rear spring (rear) | (in vehicle equipped with | |
| (6) Shock absorber | manual transmission) | |
| (7) Rear bumper | | |

Body Alignment (Sedan, Hardtop)

Dodge Colt No. 1



Inch

NOTE: Standard position

A-A — Center of sub-frame attaching bolt (rear)

B-B — Centerline of vehicle

C-C — Bottom of side sill, outer

(1) Front bumper

(2) Sub-frame

(3) Steering gear housing

(4) Rear spring (front)

(5) Rear spring (rear)

(6) Shock absorber

(7) Rear bumper

(8) Strut support

(9) Differential stopper bracket

(10) Engine mounting, rear

(in vehicle equipped with manual transmission)

(11) Engine mounting, rear

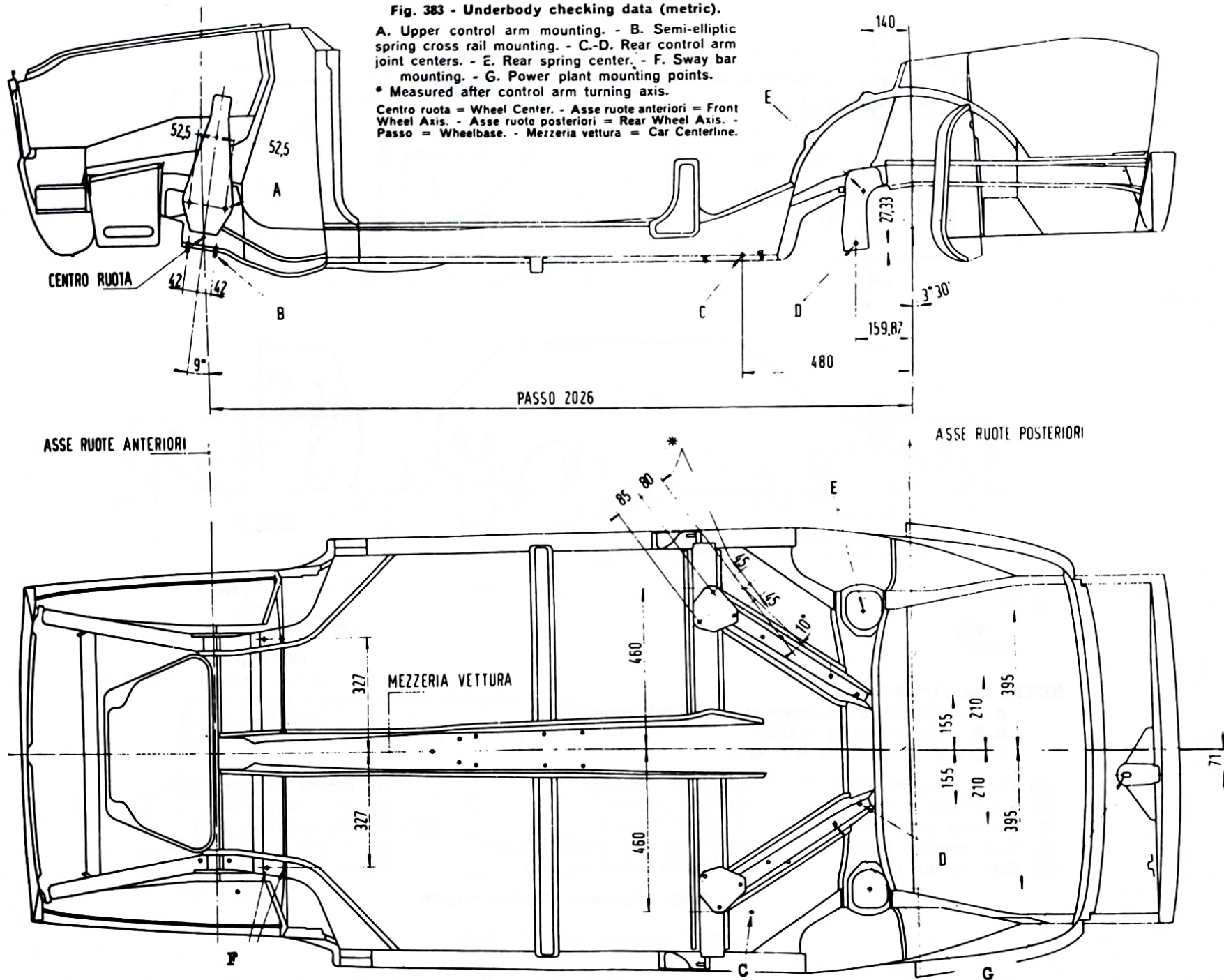
(in vehicle equipped with torque converter)

Body Alignment (Station wagon)

Dodge Colt No. 2

Fig. 383 - Underbody checking data (metric).

A. Upper control arm mounting. - B. Semi-elliptic spring cross rail mounting. - C.-D. Rear control arm joint centers. - E. Rear spring center. - F. Sway bar mounting. - G. Power plant mounting points.
 * Measured after control arm turning axis.
 Centro ruota = Wheel Center. - Asse ruote anteriori = Front Wheel Axis. - Asse ruote posteriori = Rear Wheel Axis. - Passo = Wheelbase. - Mezzeria vettura = Car Centerline.



Fiat 850

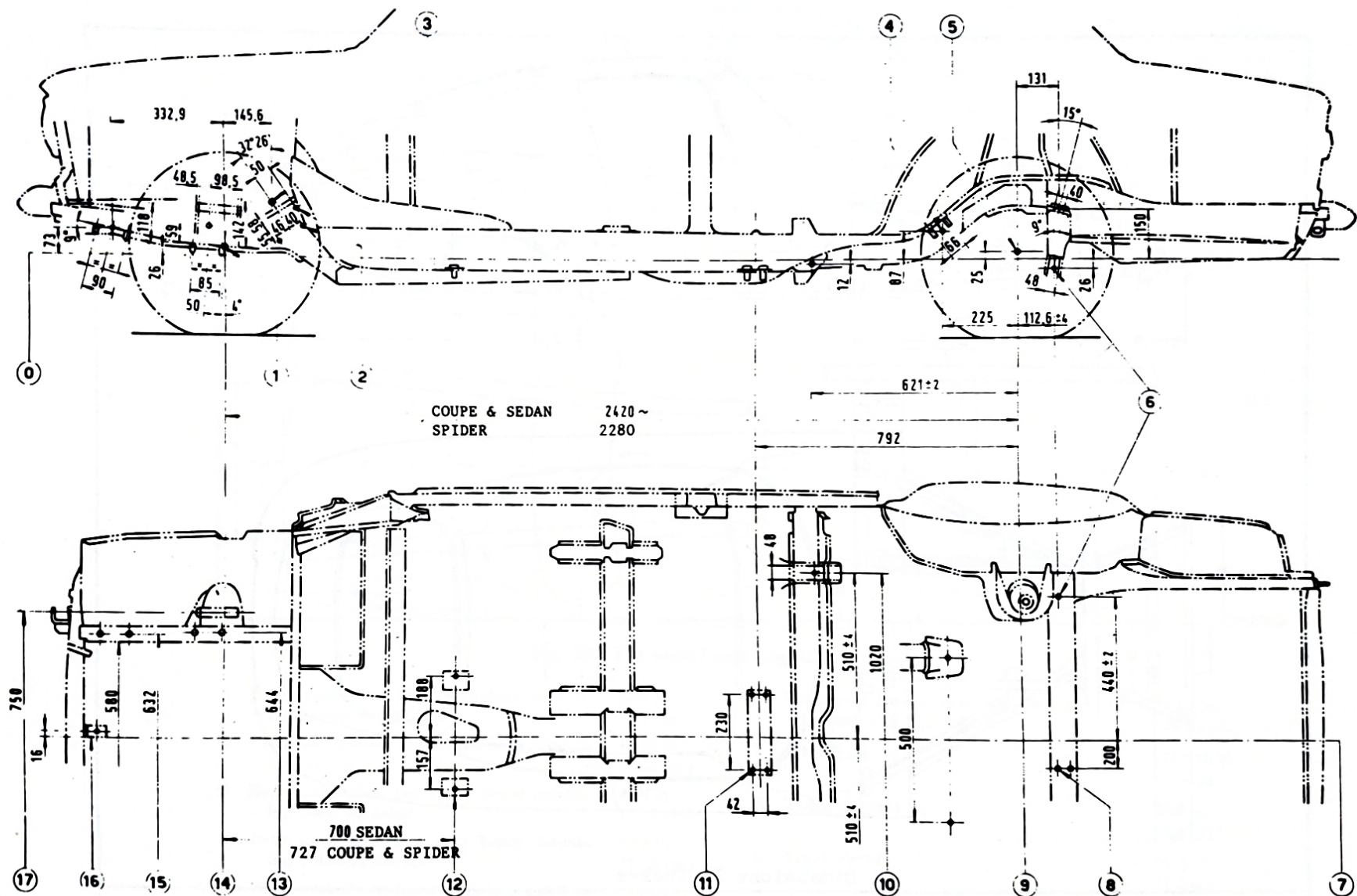
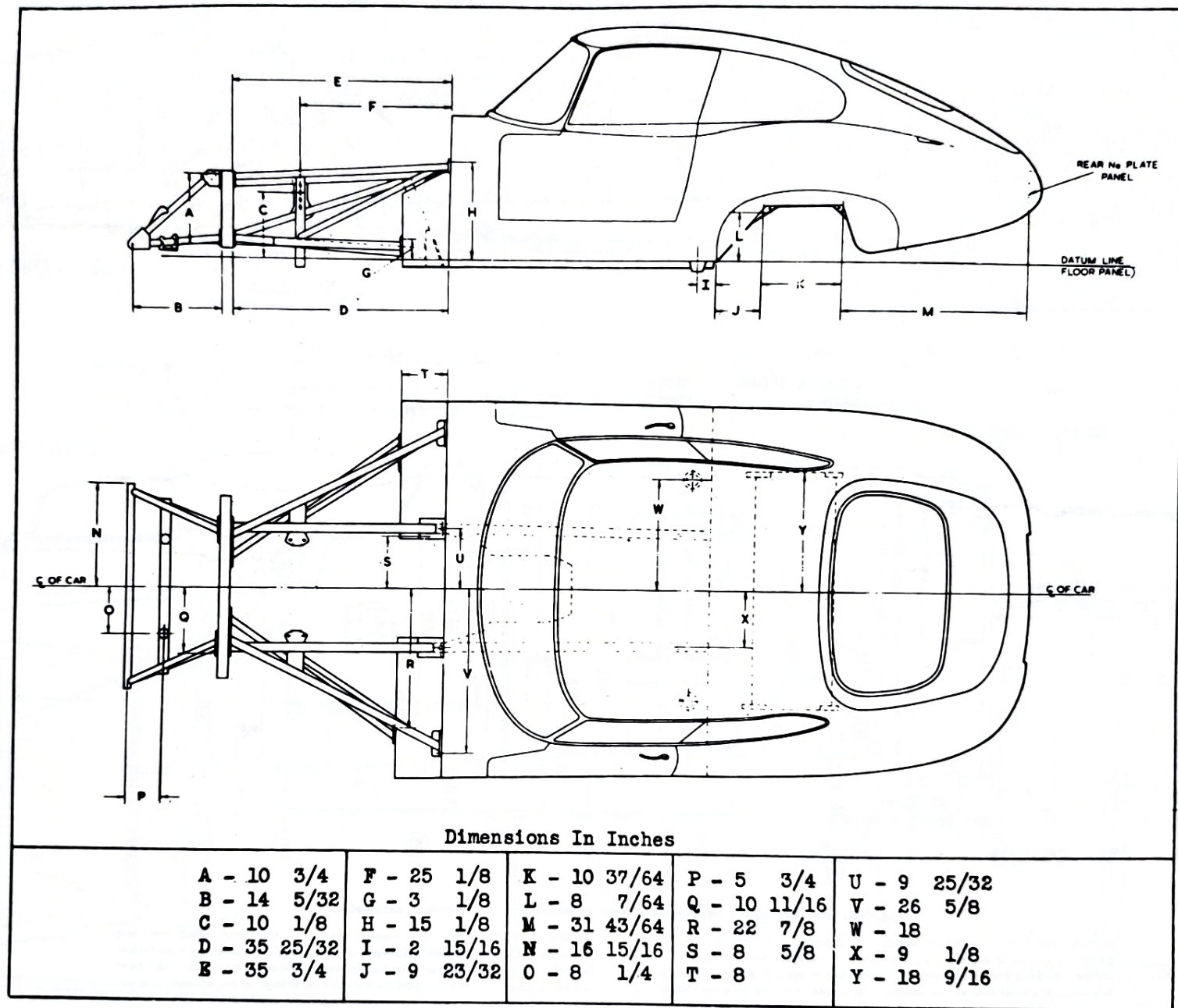


Fig. 444 - Main dimensions for checking points of attachment of mechanical assemblies.

0. Reference line. - 1. Wheel centre. - 2. Steering box and idler arm fixing point. - 3. Centre of steering box. - 4. Centre of stabilizer bar bracket. - 5. Wheel centre. - 6. Sway bar attachment. - 7. Center line of car. - 8. Braking regulator bar bracket. - 9. Center line of rear wheels. - 10. Center distance between anchor rod

brackets. - 11. Propeller shaft support bracket. - 12. Power plant rear end mounting. - 13. Center distance between front suspension mountings. - 14. Center line of front wheels. - 15. Center distance between stabilizer bar mountings. - 16. Lower radiator support. - 17. Center distance between mountings of upper control arms.

Fiat — 124 Sedan-Coupe-Spider



Jaguar—"E" Type, Series II

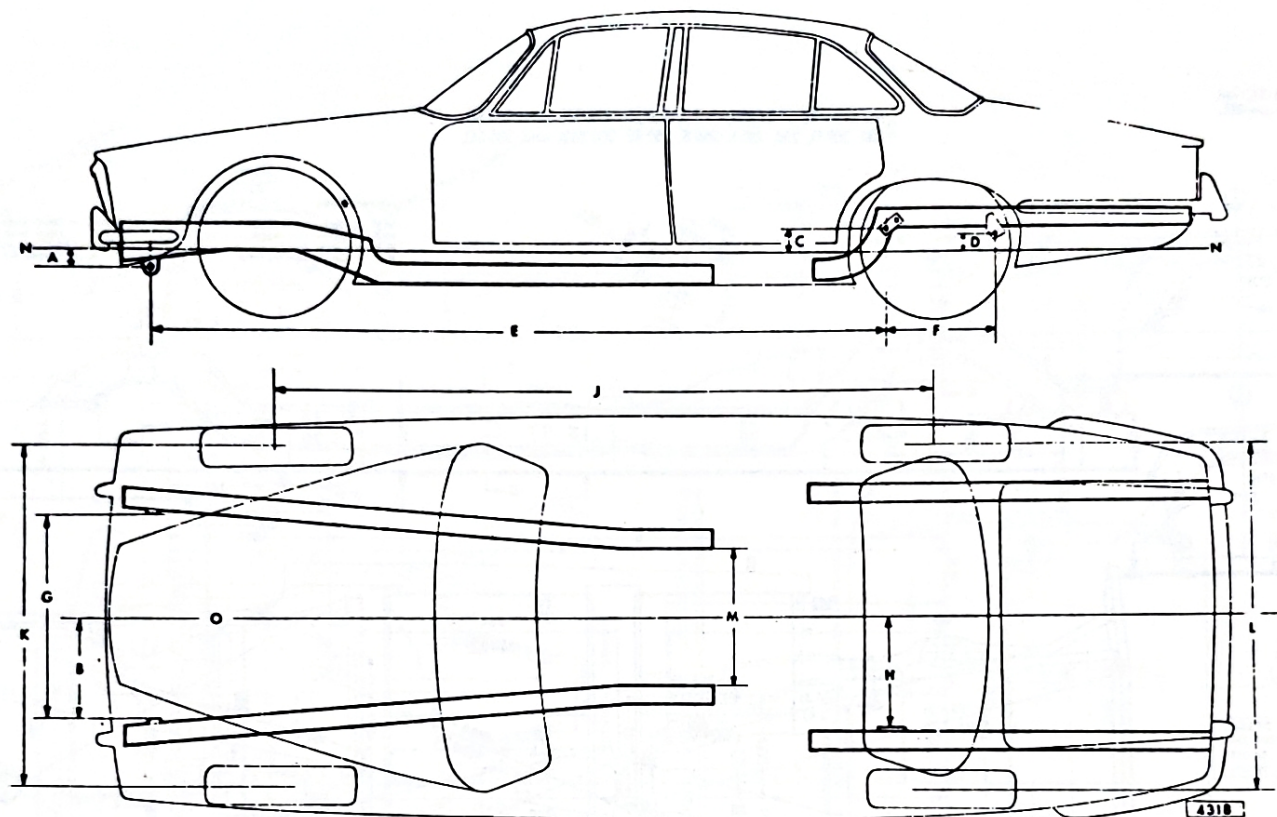


Fig. 30. The underframe alignment diagram

A	Front suspension front mounting point to horizontal datum line	3.05 in. (7.7 cm)	H	Distance between rear suspension front bracket and C.L. of car	19.53 in. (49.7 cm)
B	Front suspension front mounting boss to C.L. of car	15.56 in. (39.5 cm)	J	Wheelbase	108.875 in. (2.76 m)
C	Rear suspension unit front lower mounting point to datum	4.54 in. (11.5 cm)	K	Track (front)	58.0 in. (1.47 m)
D	Rear suspension unit rear lower mounting point to datum	4.34 in. (11.0 cm)	L	Track (rear)	59.0 in. (1.5 m)
E	Front suspension front mounting point to rear suspension front lower point	116.54 in. (2.96 m)	M	Inner faces of front chassis members at rear	13.4375 in. (34.1 cm)
F	Rear suspension front lower mounting point to rear suspension rear lower point	13.06 in. (33.2 cm)	N	Horizontal datum line	
G	Distance between inner faces of L.H. and R.H. front suspension front mounting point	31.12 in. (79.0 cm)	O	Centre line of car	

Jaguar XJ-6

Addition: Check diagram for Model 330 SL, red diagonal measurements and Models 300 to 300 SEL.

Models 190 c, 190 Dc, 220 b, 220 Sb, 220 SEb and 300 SE
200, 200 D, 230, 230 S, 250 S, 250 SE, 300 SEb, and 300 SEL

Models 220 b, 220 Sb,
220 SEb, 1st version

Models 190 c, 190 Dc,
200, 200 D, 230

Measuring
point K

Dimension	angle	190 c, Dc, 200, 200 D, 230	220 b, Sb, SEb, 1 st version	220 b, Sb, SEb, 2 nd version 300 SE, 230 S	220 SEb/C, SEb, 250 S, 250 SE, 300 SEb, 300 SEL
a ¹⁾		2 700		2 730 ¹⁾	
b		2 128 ± 3		2 182 ± 3 ¹⁾	
c		17		13	
d		382 ± 1	375 ± 1		382 ± 1
e		347.4 ± 0.5	323 ± 0.5	325 ± 0.5	339 ± 0.5
f		227.5 ± 0.5	240 ± 0.5		239 ± 0.5
g		28° 35'	27° 55'	28° 35'	26°
h		272.6	247.5	249.8	252.5
i		217	291		219 ± 2
k		97	164.5		95 ± 1
l		28° 35'	27° 55'		
m		925.5			979.5
n		913			967
o		1 128			1 182
p		2 058			2 112
q ¹⁾	γ ¹⁾	4°	2° 30'		4°
	ε ¹⁾	50 10° 30'	55 7°		50 10° 30'

¹⁾ Wheel base

²⁾ On Model 300 SE long and 300 SEL 100 mm longer

³⁾ Models 190 c, 190 Dc, 200, 200 D, 230

⁴⁾ Models 220 b, 220 Sb, 220 SEb, 300 SE, 230 S, 250 S, 250 SE

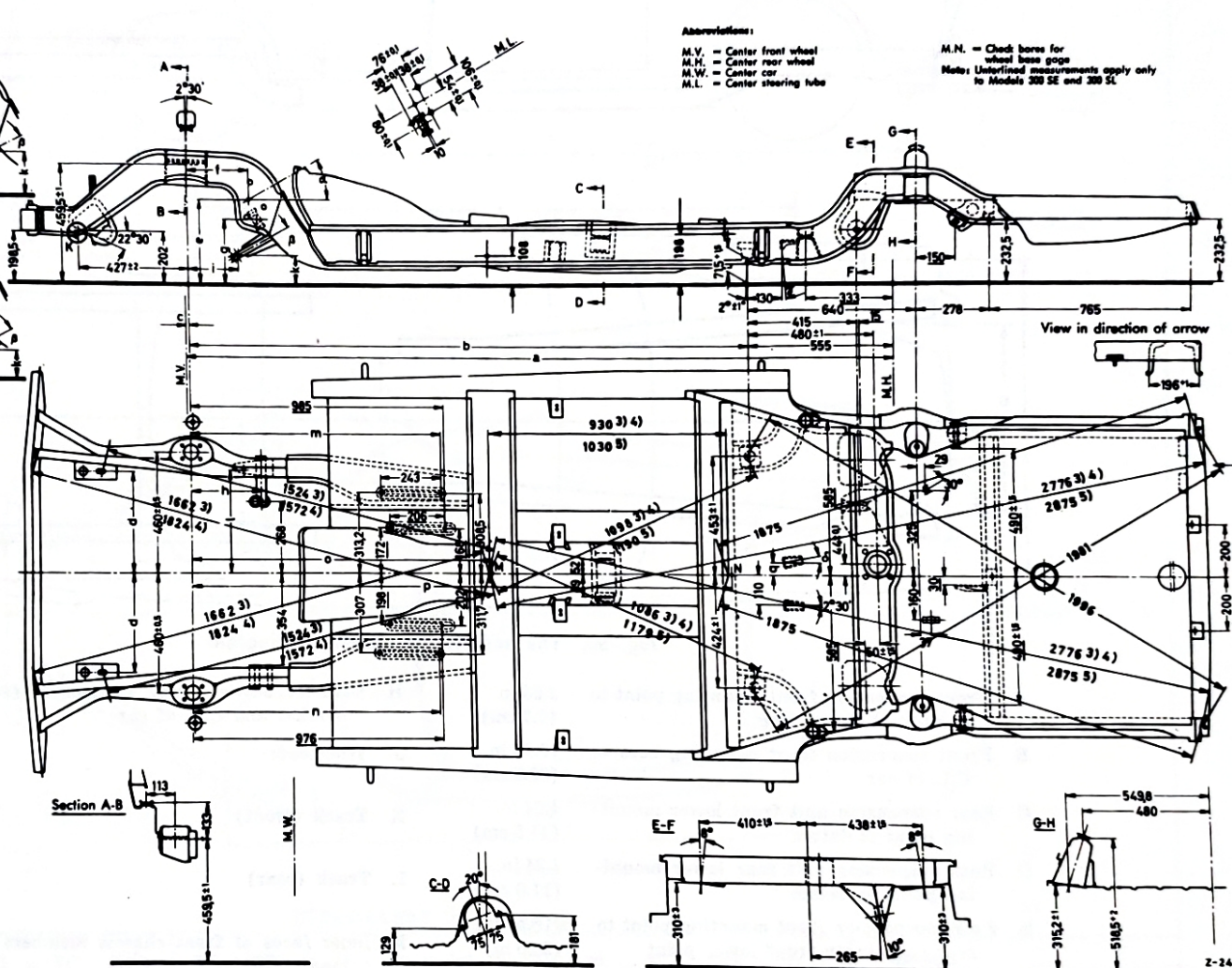
⁵⁾ Models 300 SE long, 300 SEL

⁶⁾ Applies only to Models 190 c to 300 SE

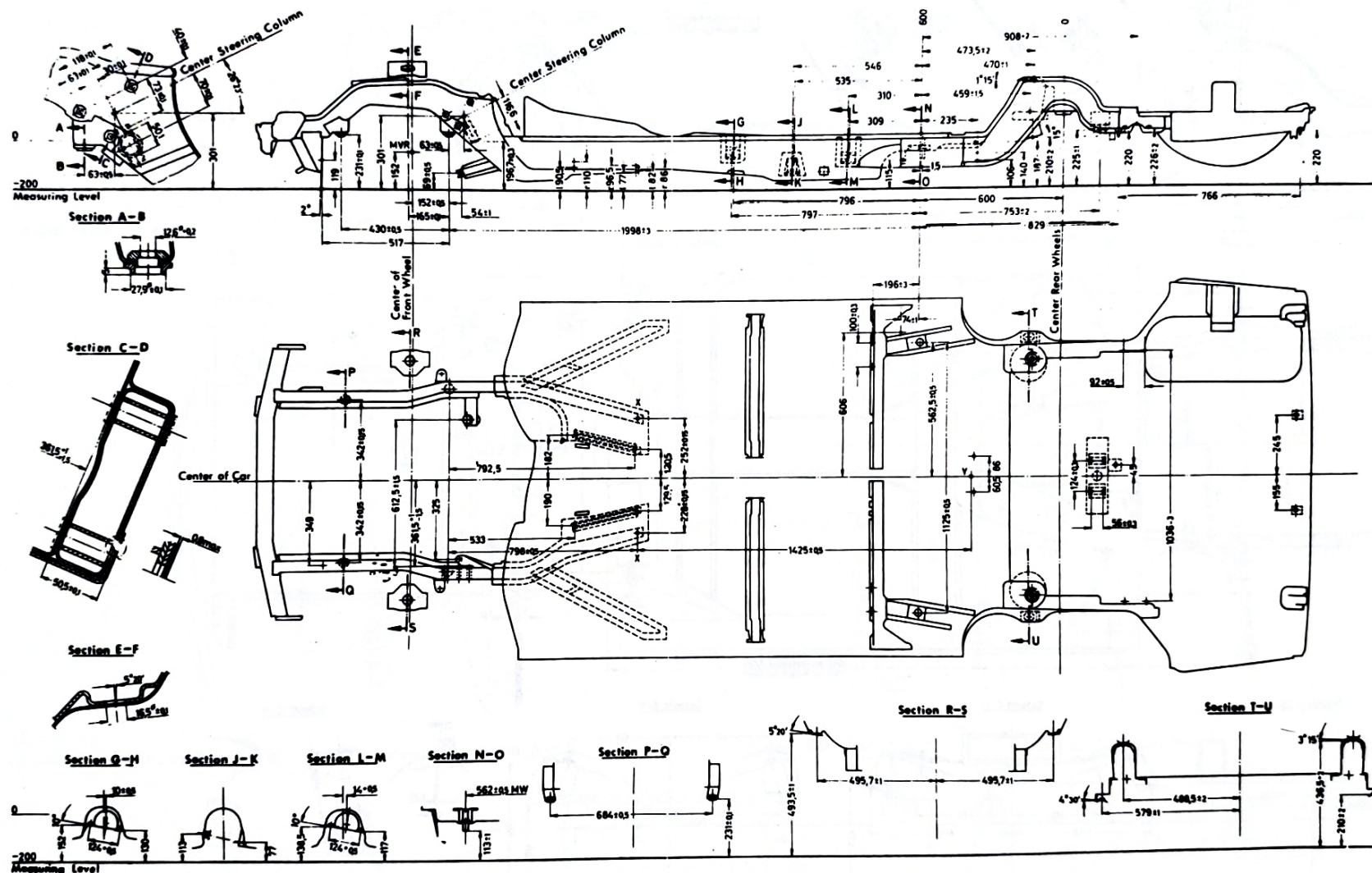
Abbreviations:

M.V. = Center front wheel
M.H. = Center rear wheel
M.W. = Center car
M.L. = Center steering tube

M.N. = Check bases for
wheel base gage
Note: Underlined measurements apply only
to Models 300 SE and 300 SL

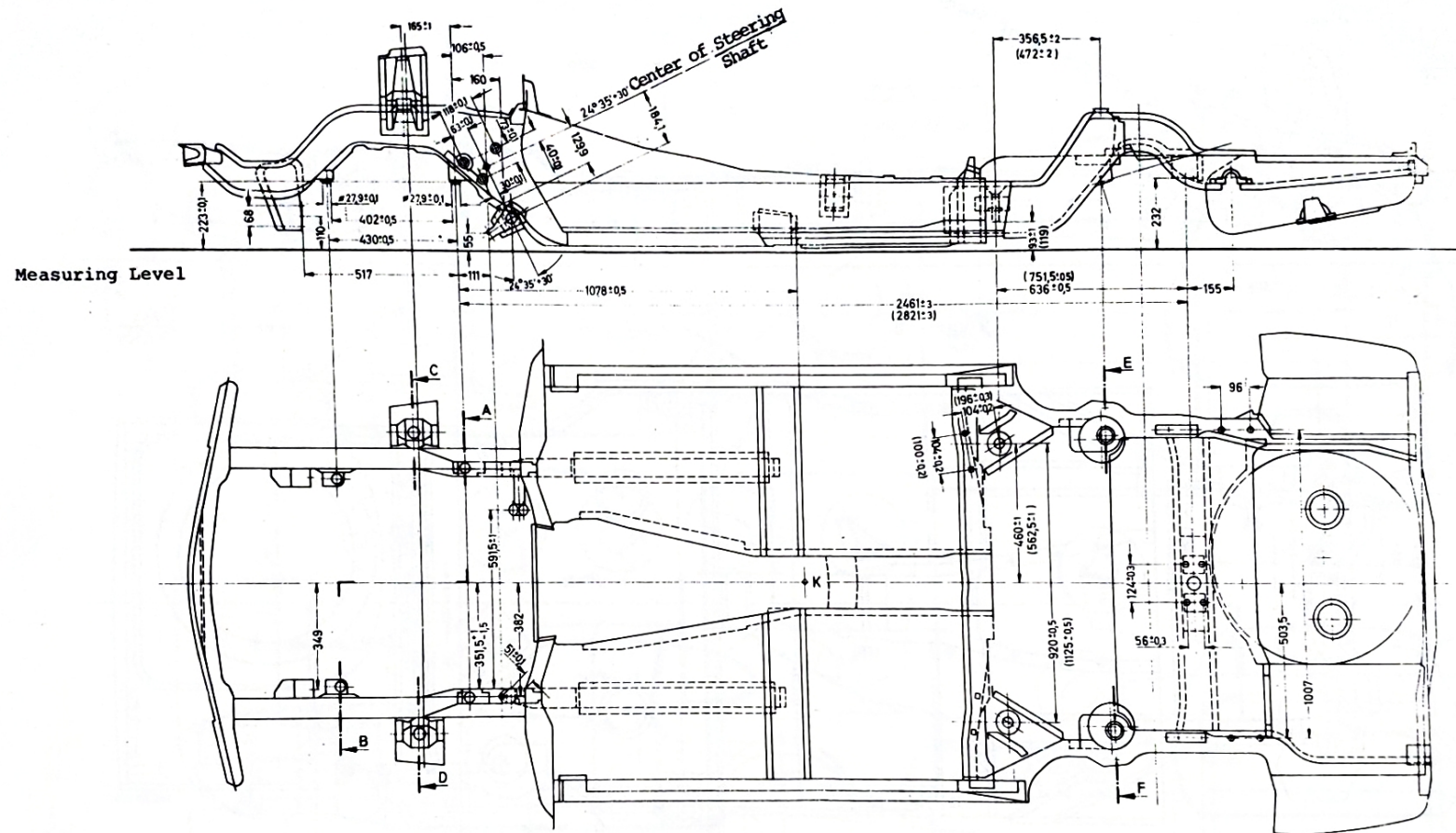


Mercedes-Benz



X, Y = Measuring bore for inserting wheel base measuring device • MW = Center of car • MVR = Center of front wheel

Mercedes-Benz 220/8 - 220D/8 - 230/8 - 250/8



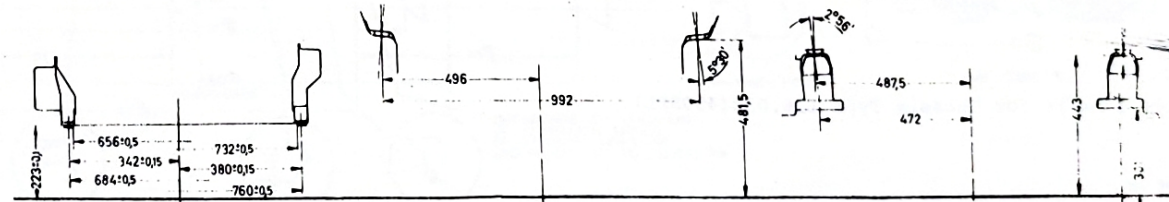
As Seen in Driving Direction

Cross Section A-B

Cross Section C-D

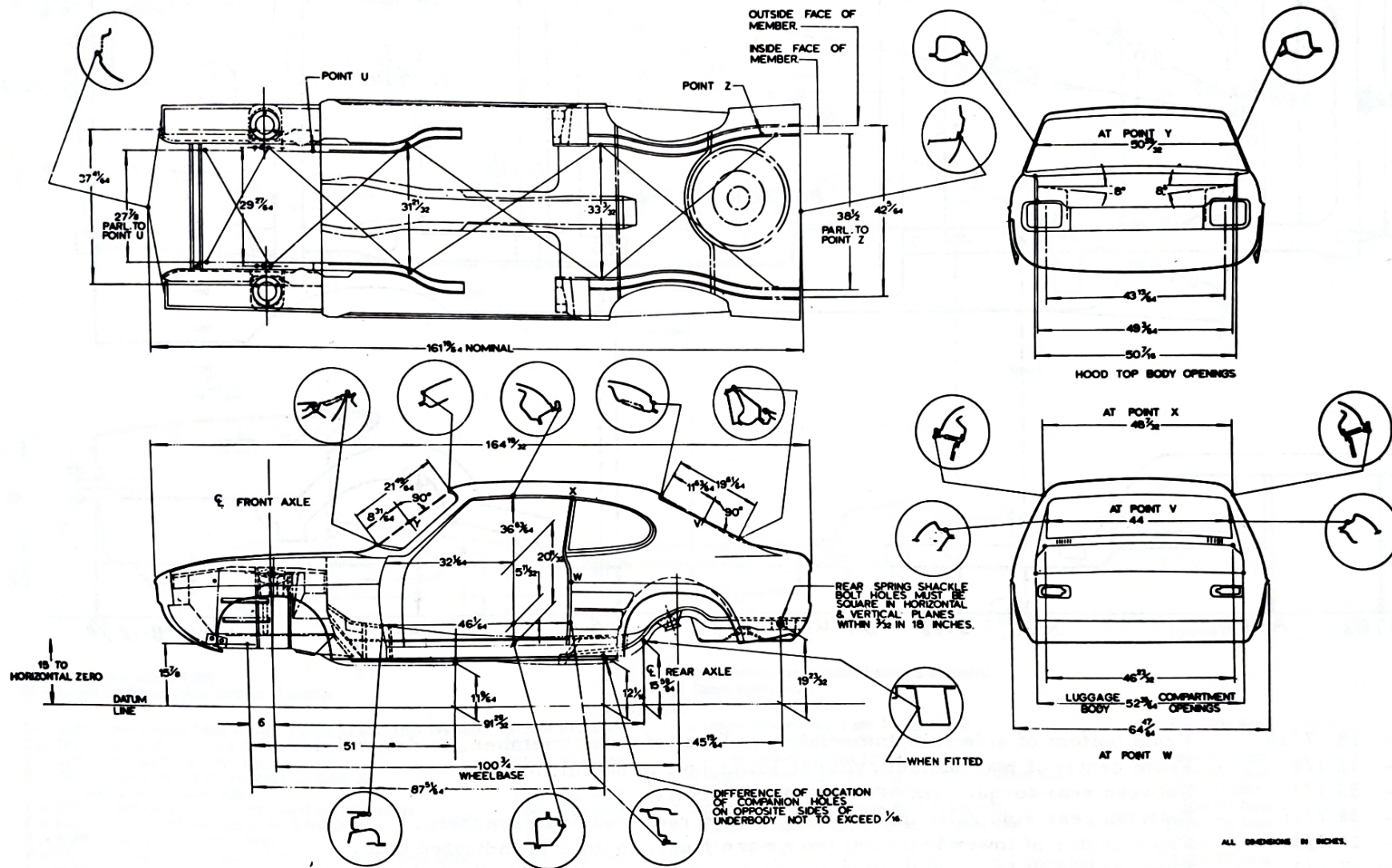
Cross Section E-F

The measurements in parentheses are for the 107.024(450SLC)



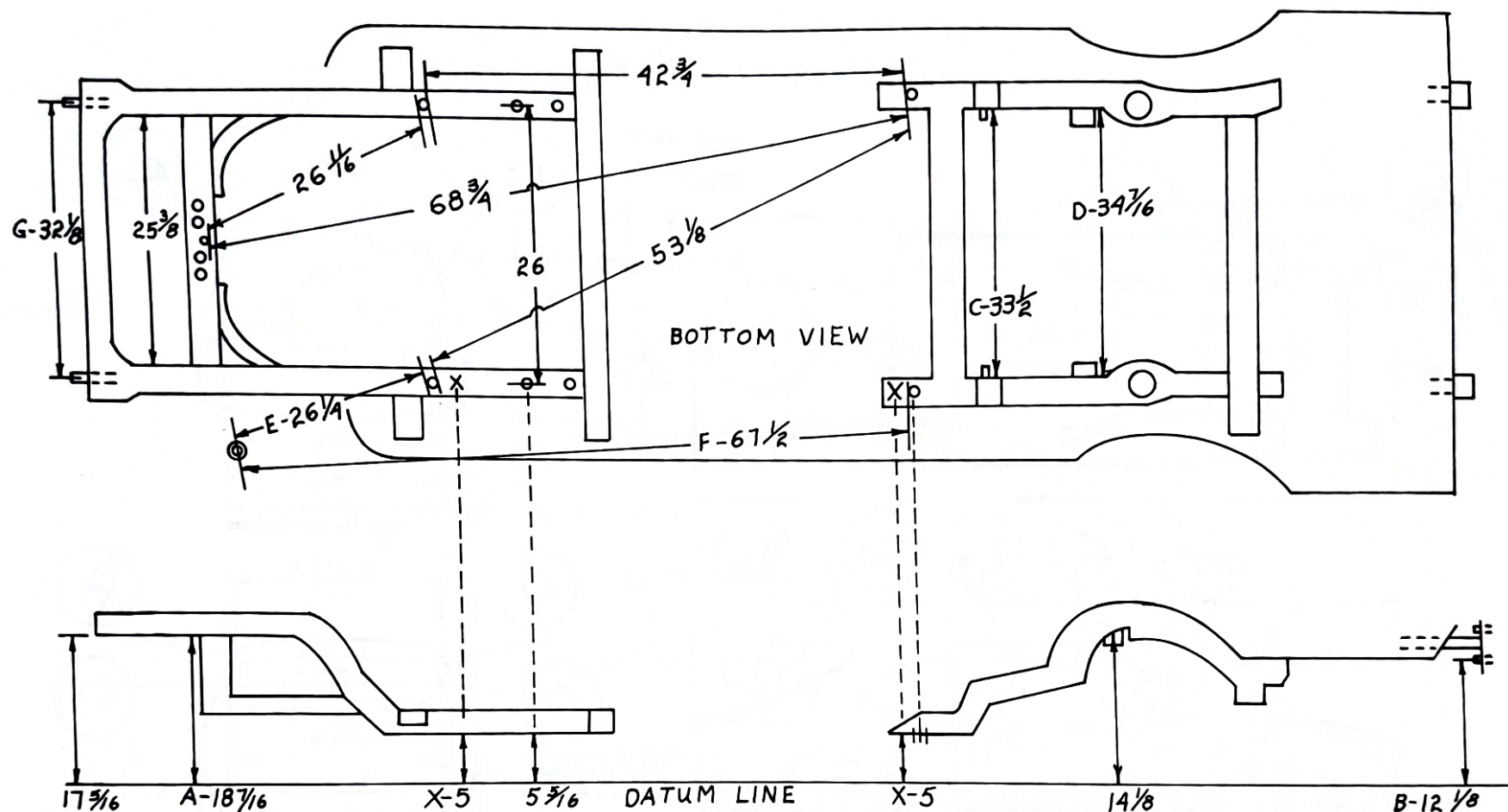
16/13-54/4

Mercedes-Benz 450 SL-RL

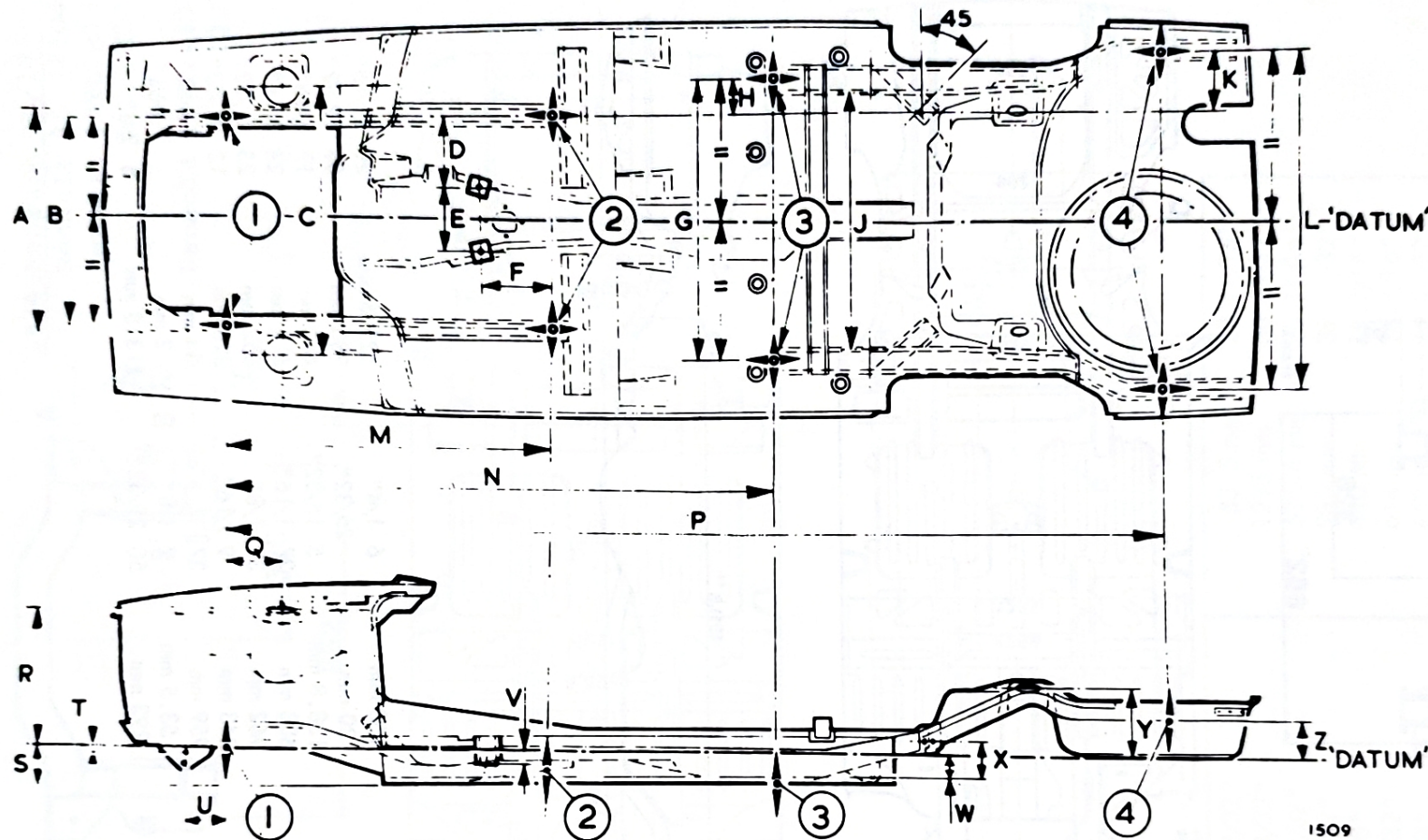


N2080-A

MERCURY CAPRI



- | | |
|----------------------|---|
| A - $18\frac{7}{16}$ | - From bottom of side rail immediately in front of cross member, to datum line. |
| B - $12\frac{1}{8}$ | - From center of rear bumper cylinder lower bolt to datum line. |
| C - $33\frac{1}{2}$ | - Between rear torque arm brackets on side rails. |
| D - $34\frac{7}{16}$ | - Between rear side rails immediately behind rear sway bar brackets. |
| E - $26\frac{1}{4}$ | - From center of lower ball joint (no grease plug), to edge of indicated hole. |
| F - $67\frac{1}{2}$ | - From center of lower ball joint (no grease plug), to edge of indicated hole. |
| G - $32\frac{1}{8}$ | - Center to center of front bumper cylinders. |
| X - | - Locations for #2 and #3 datum gauges. Locate sighting pins exactly 5" below bottom surface of side rails at indicated gauge hole areas. |



1509

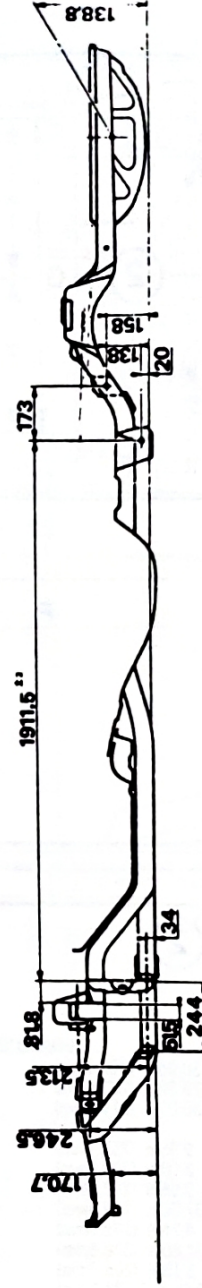
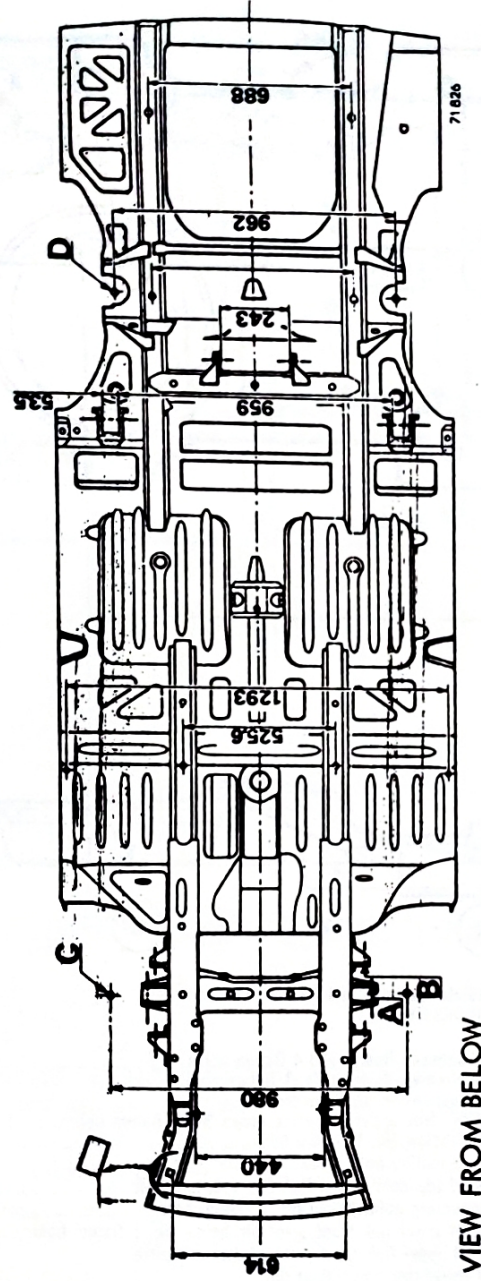
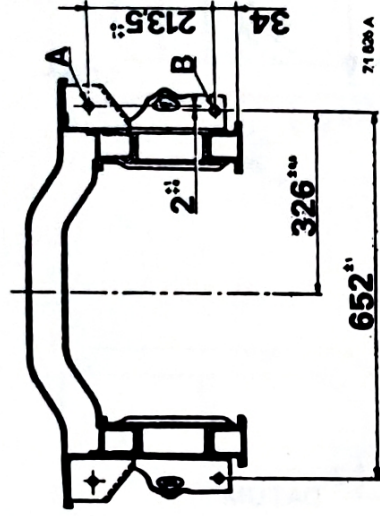
- (1) Master Datum points (front)
 (2) Intermediate Datum points (forward of centre)

- (3) Intermediate Datum points (rearward of centre)
 (4) Datum points (rear)

DIMENSIONS

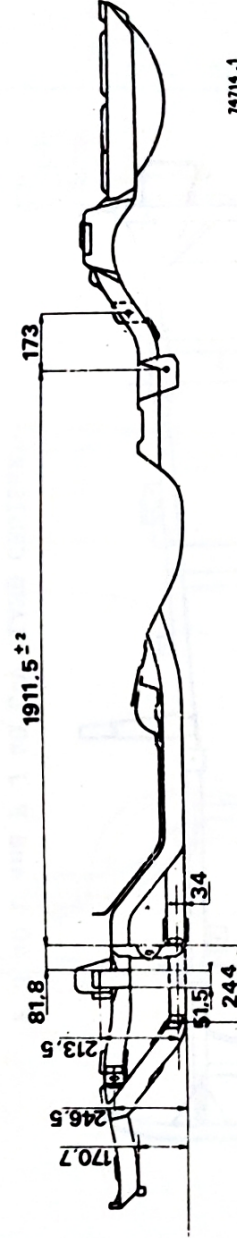
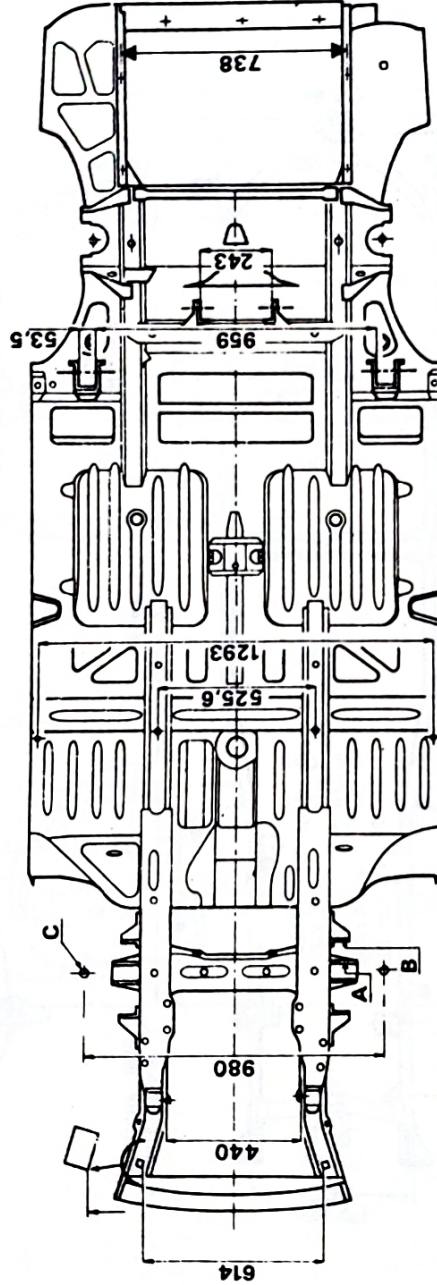
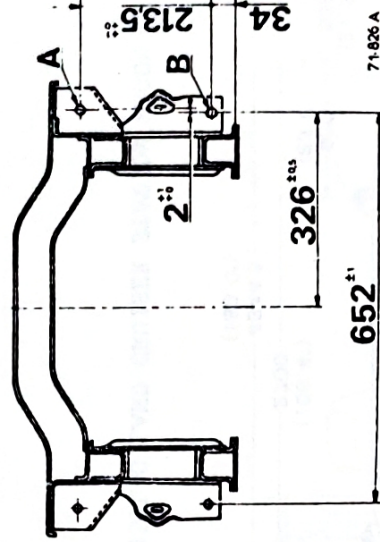
A = Width between inside faces of outer flanges of drag strut brackets	30.05in (763,3mm)	P = Length between Nos. 1 and 4 Datum holes	127.00in (3225,8mm)
B = Width between Nos. 1 and 2 Datum holes	28.50in (723,9mm)	Q = Distance rearwards from No. 1 Datum hole to suspension strut centre	7.90in (200,7mm)
C = Centres of suspension strut top mountings	36.03in (914,4mm)	R = Height of strut upper mounting above No. 1 Datum hole	17.80in (452,1mm)
D = Width between centres of rear mounting point and Nos. 1 and 2 Datum holes	9.95in (252,7mm)	S = Body sill below No. 1 Datum hole	4.35in (110,5mm)
E = Distance between centres of rear mounting fixing points	8.00in (203,2mm)	T = Centre of tooling hole below No. 1 Datum hole	.50in (12,7mm)
F = Rear mounting points forward of No. 2 Datum holes	9.95in (252,7mm)	U = Centre of top hole forward of No. 1 Datum hole	4.95in (125,7mm)
G = Width between No. 3 Datum holes	37.00in (939,8mm)	V = Rear mounting point below No. 1 Datum hole	2.35in (59,7mm)
H = Distance of No. 3 Datum hole outside Nos. 1 and 2 Datum holes	4.25in (108,1mm)	W = Centre of lower link front pivot pin below No. 1 Datum hole	3.85in (97,8mm)
J = Width inside inner faces of lower link front mountings	34.60in (878,8mm)	X = Centre of upper link front pivot pin above centre of lower link front pivot pin	5.80in (147,3mm)
K = Distance of No. 4 Datum holes outside Nos. 1 and 2 Datum holes	8.10in (205,7mm)	Y = Centre of shock absorber upper mounting above No. 1 Datum hole	8.75in (222,2mm)
L = Width between No. 4 Datum holes	44.65in (1134,1mm)	Z = Height of No. 4 Datum hole above No. 1 Datum hole	4.65in (118,1mm)
M = Length between Nos. 1 and 2 Datum holes	44.50in (1134,3mm)		
N = Length between Nos. 1 and 3 Datum holes	74.50in (1892,3mm)		

Plymouth Cricket



170.7 mm	6 23/32"	158 mm	6 1/4"	525.6 mm	20 11/16"
246.5 mm	9 23/32"	20 mm	25/32"	980 mm	38 19/32"
213.5 mm	8 13/32"	138.8 mm	5 15/32"	440 mm	17 5/16"
51.5 mm	2 1/32"	688 mm	27 1/16"	614 mm	24 3/16"
244 mm	9 5/8"	962 mm	37 7/8"	652 mm	25 21/32"
81.8 mm	3 7/32"	243 mm	9 9/16"	326 mm	12 27/32"
1911.5 mm	75 1/4"	959 mm	37 3/4"	34 mm	1 11/32"
34 mm	1 5/16"	53.5 mm	2 1/8"	2 mm	5/64"
173 mm	6 13/16"	1 293 mm	50 29/32"	213.5 mm	8 3/8"
138 mm	5 7/16"				

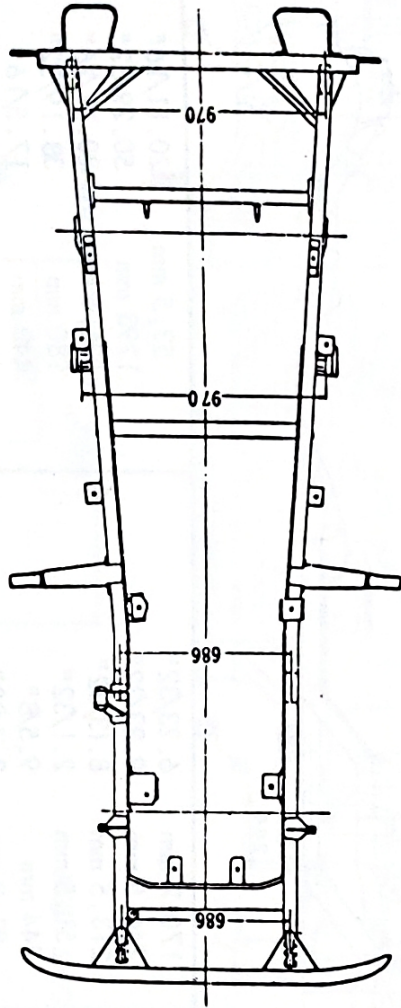
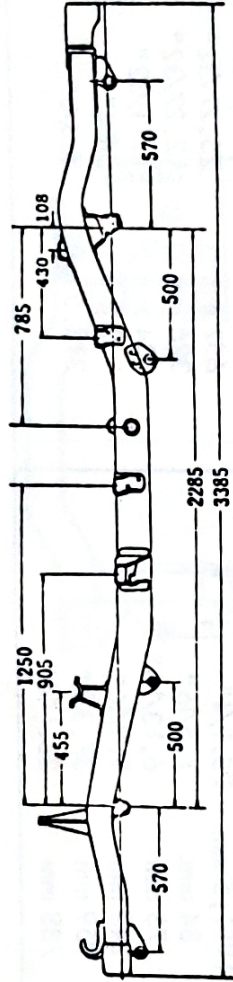
1974 Renault 15/17
 Renault 15 R1304
 Renault 17TL R1314
 & R1324
 Renault 17TS R1313
 & R1323



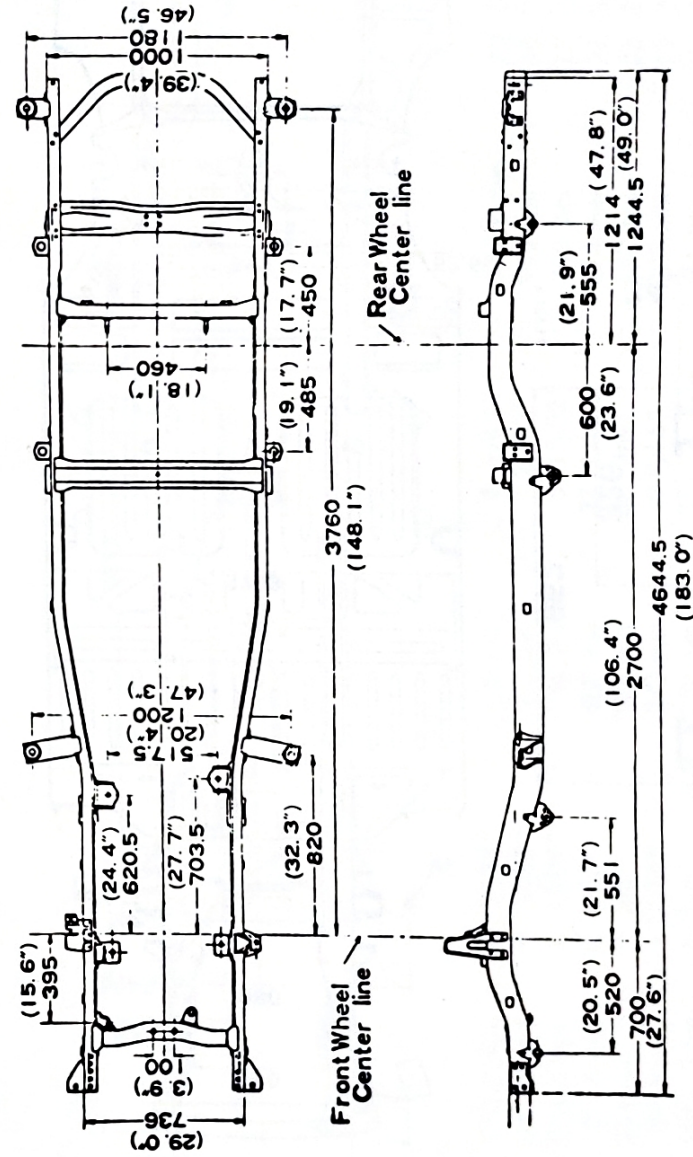
170,7 mm	6.23/32"	53,5 mm	20.11/16"
246,5 mm	9.23/32"	1293 mm	50.29/32"
213,5 mm	8.13/32"	525,6 mm	20.11/16"
51,5 mm	2.1/32"	980 mm	38.19/32"
244 mm	9.5/8"	440 mm	17.5/16"
81,8 mm	3.7/32"	614 mm	24.3/16"
1911,5 mm	75.1/4"	652 mm	25.27/32"
34 mm.	1.5/16"	326 mm	12.27/32"
173 mm	6.13/16"	34 mm	1.11/32"
242 mm	9.9/16"	2 mm	5/64"
959 mm	37.3/4"	213,5 mm	8.3/8"
738 mm	28.1/16"		

Renault R-15-17

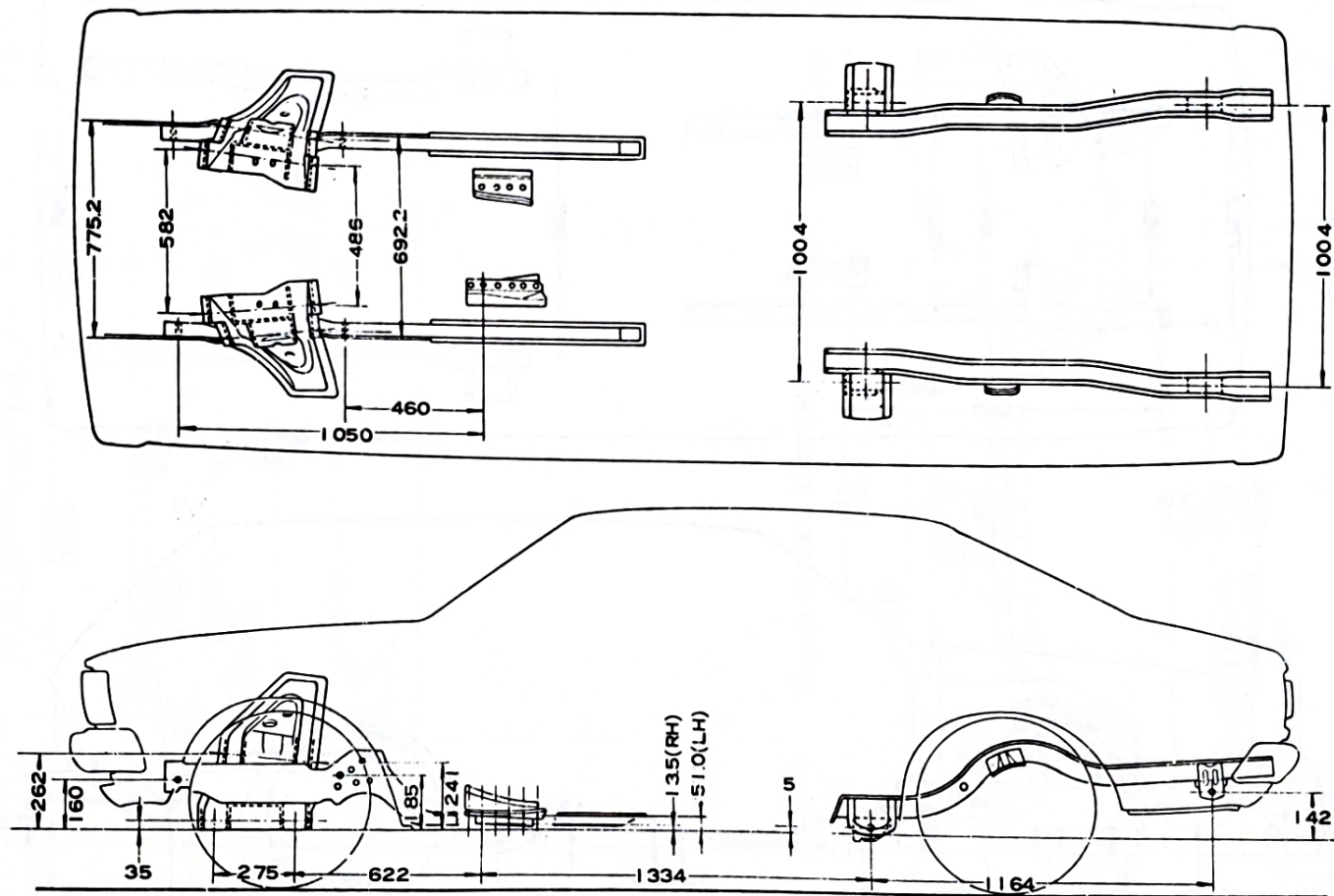
Toyota Land Cruiser



F J 40 L and F J 40 L-V LAND CRUISER

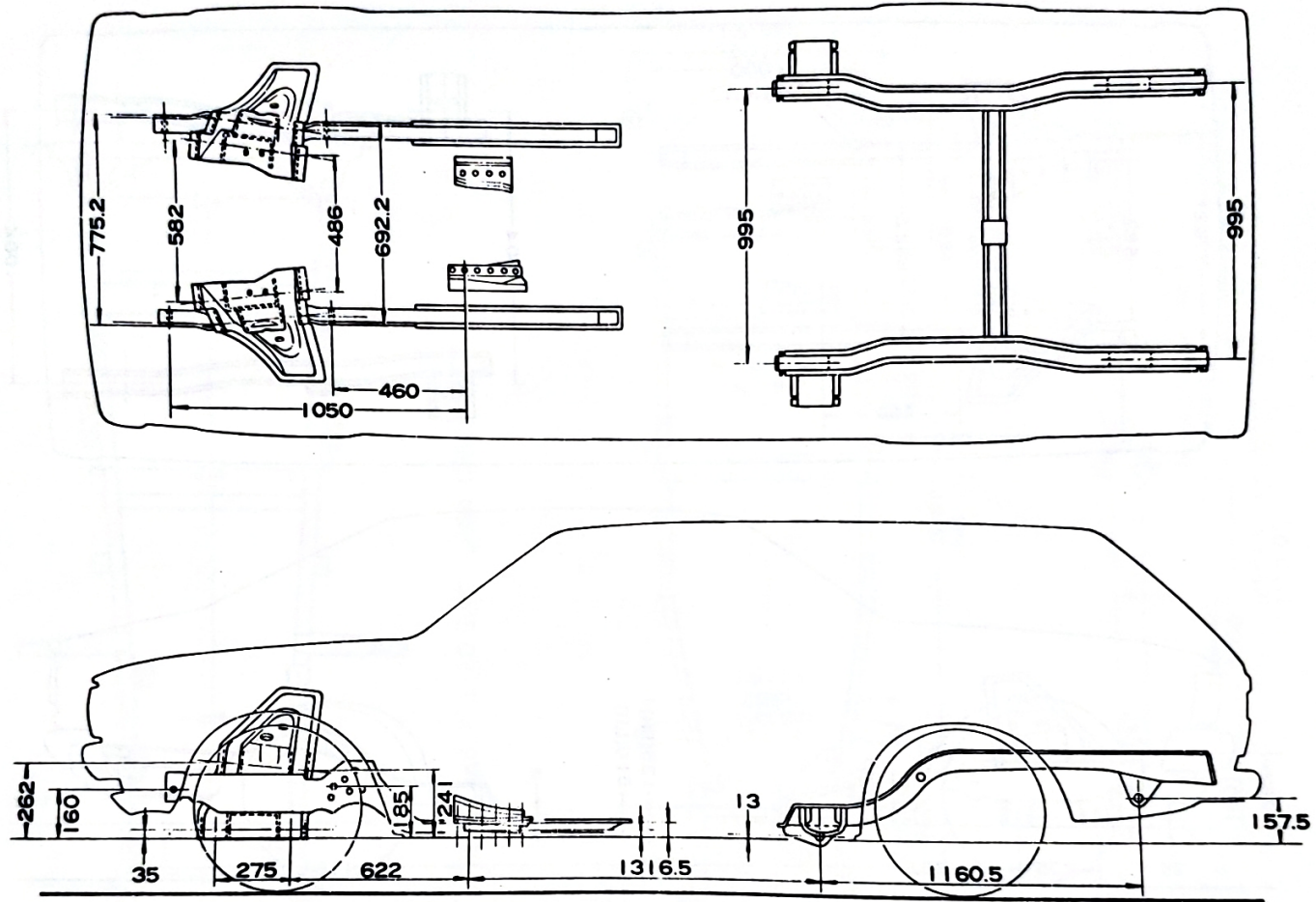


FJ55L-G LAND CRUISER STATION WAGON



mm

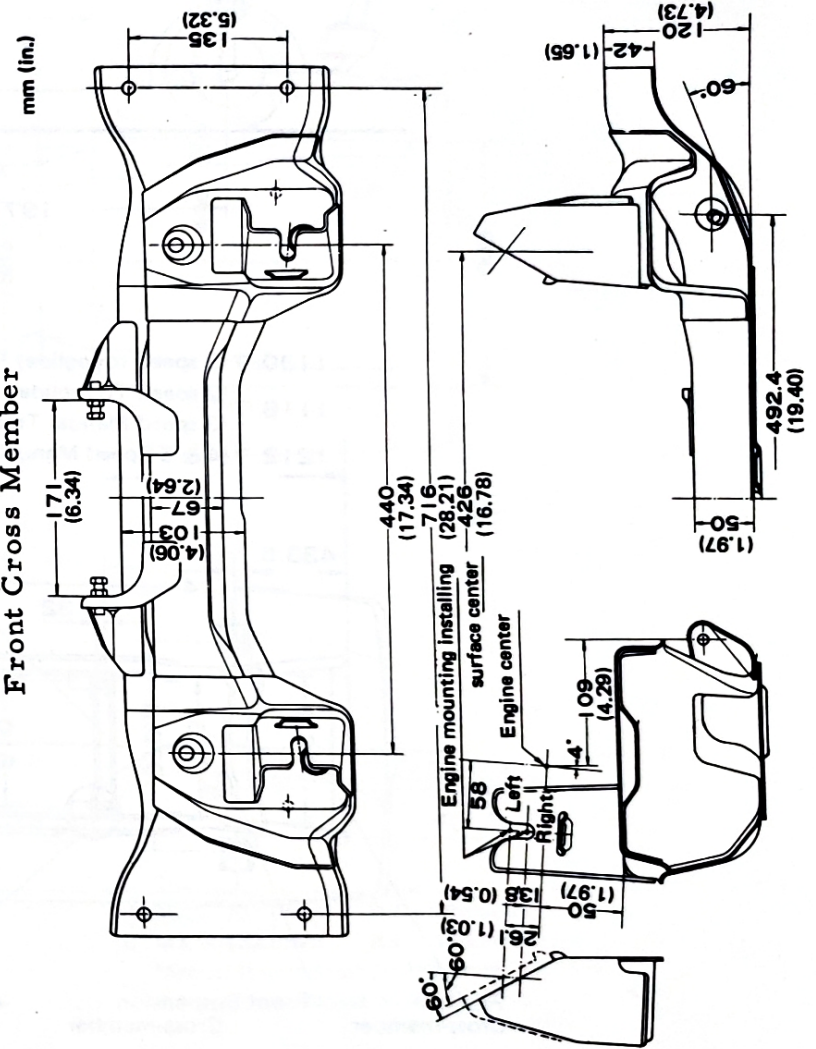
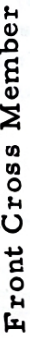
Toyota Corona Sedan & Hardtop

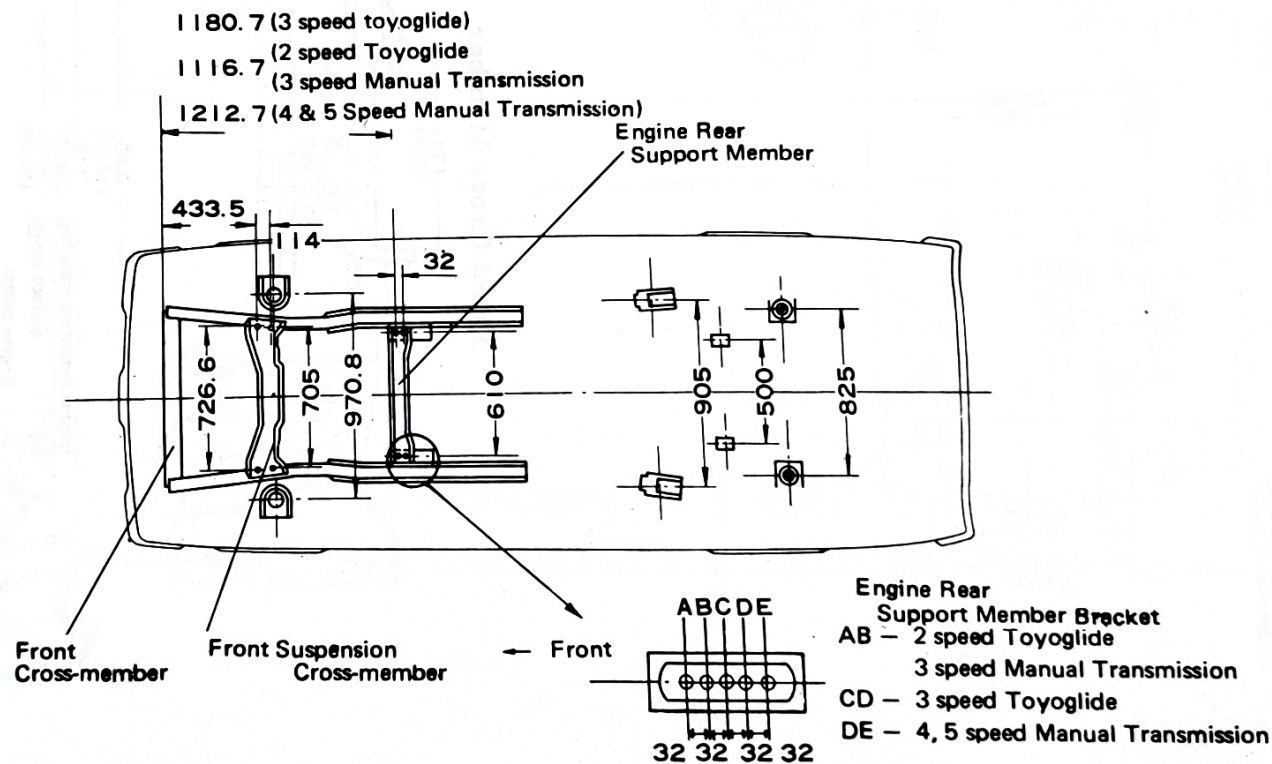
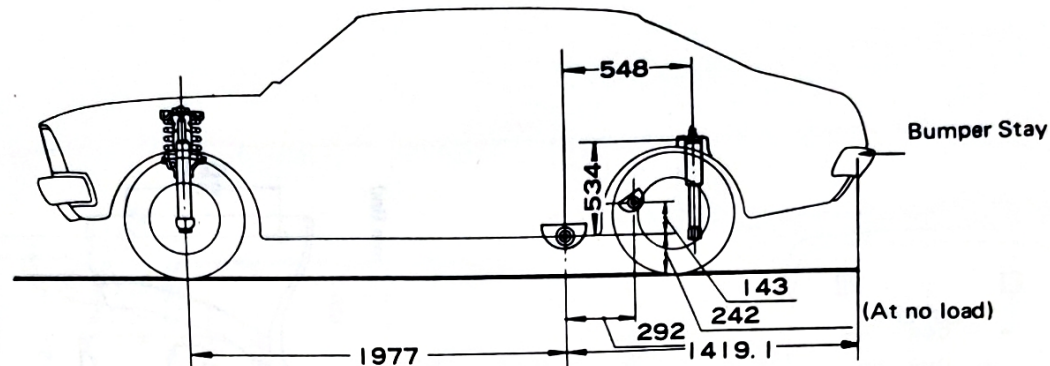


mm

Toyota Corona Station Wagon

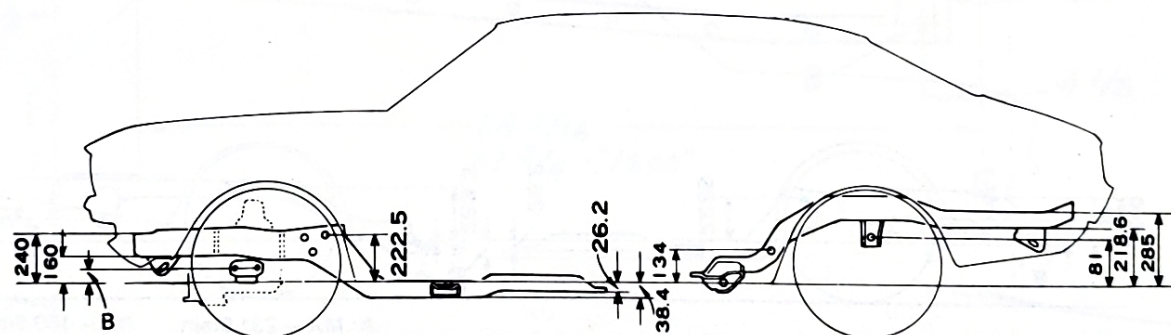
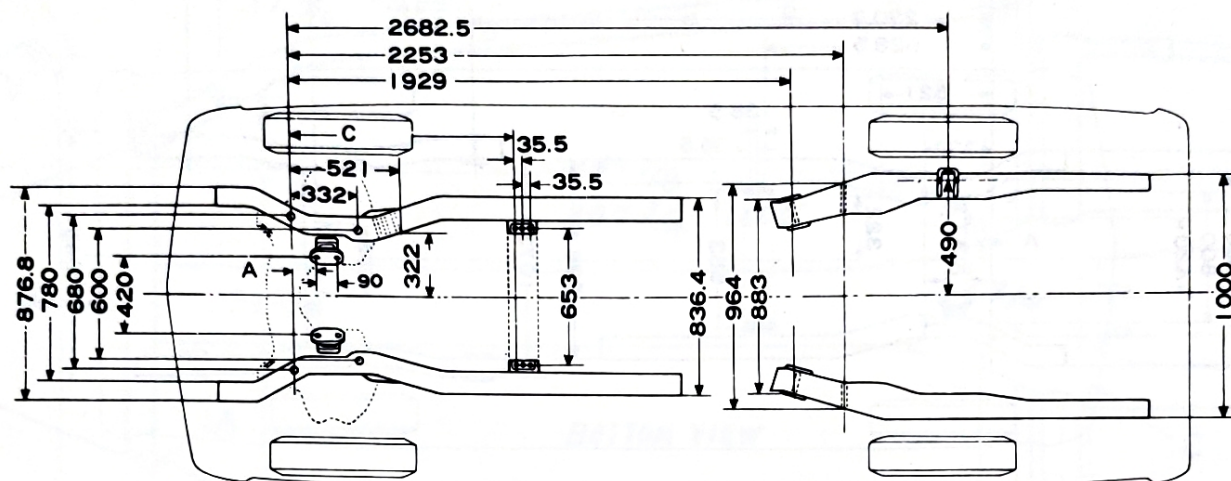
mm (in.)





TOYOTA CARINA & CELICA

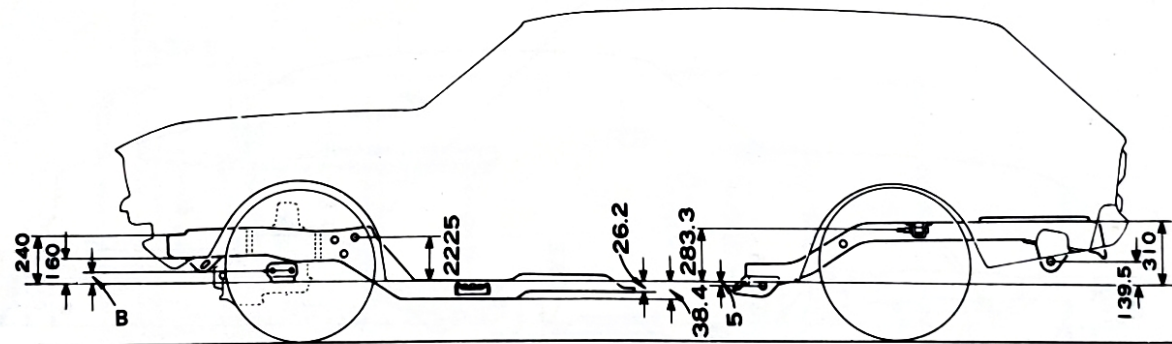
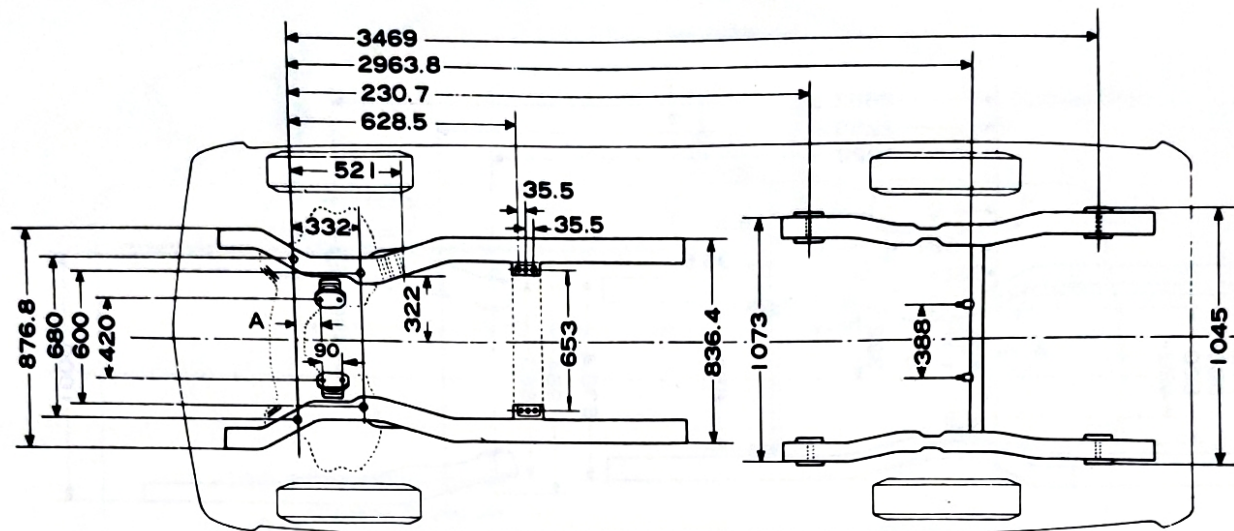
mm



A: MX - 231.9mm RX - 150.5mm
 B: MX - 132.5mm RX - 145.9mm
 C: Manual transmission 150.5mm
 Automatic transmission 685.8mm

SEDAN & HARDTOP

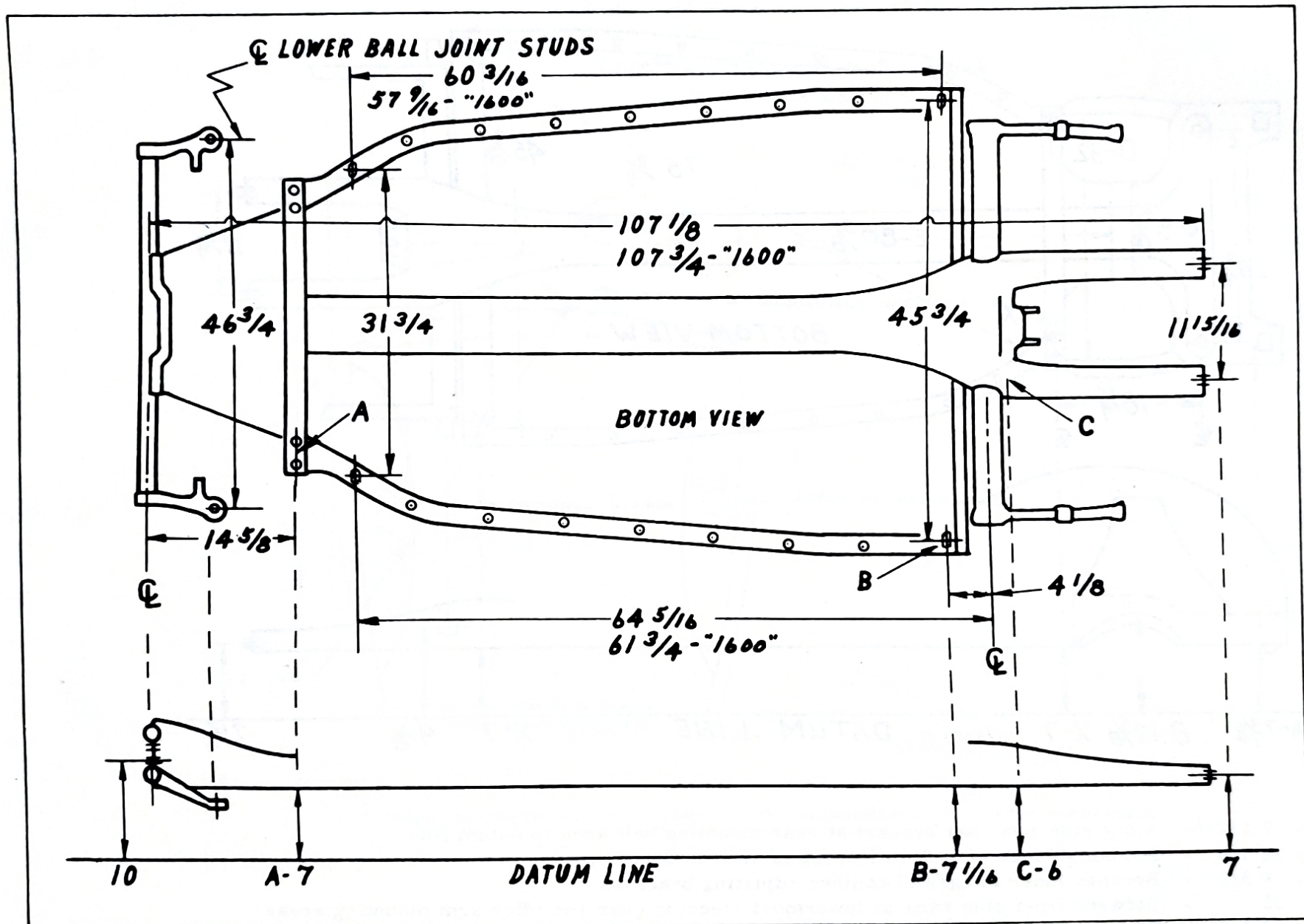
TOYOTA CORONA MARK II



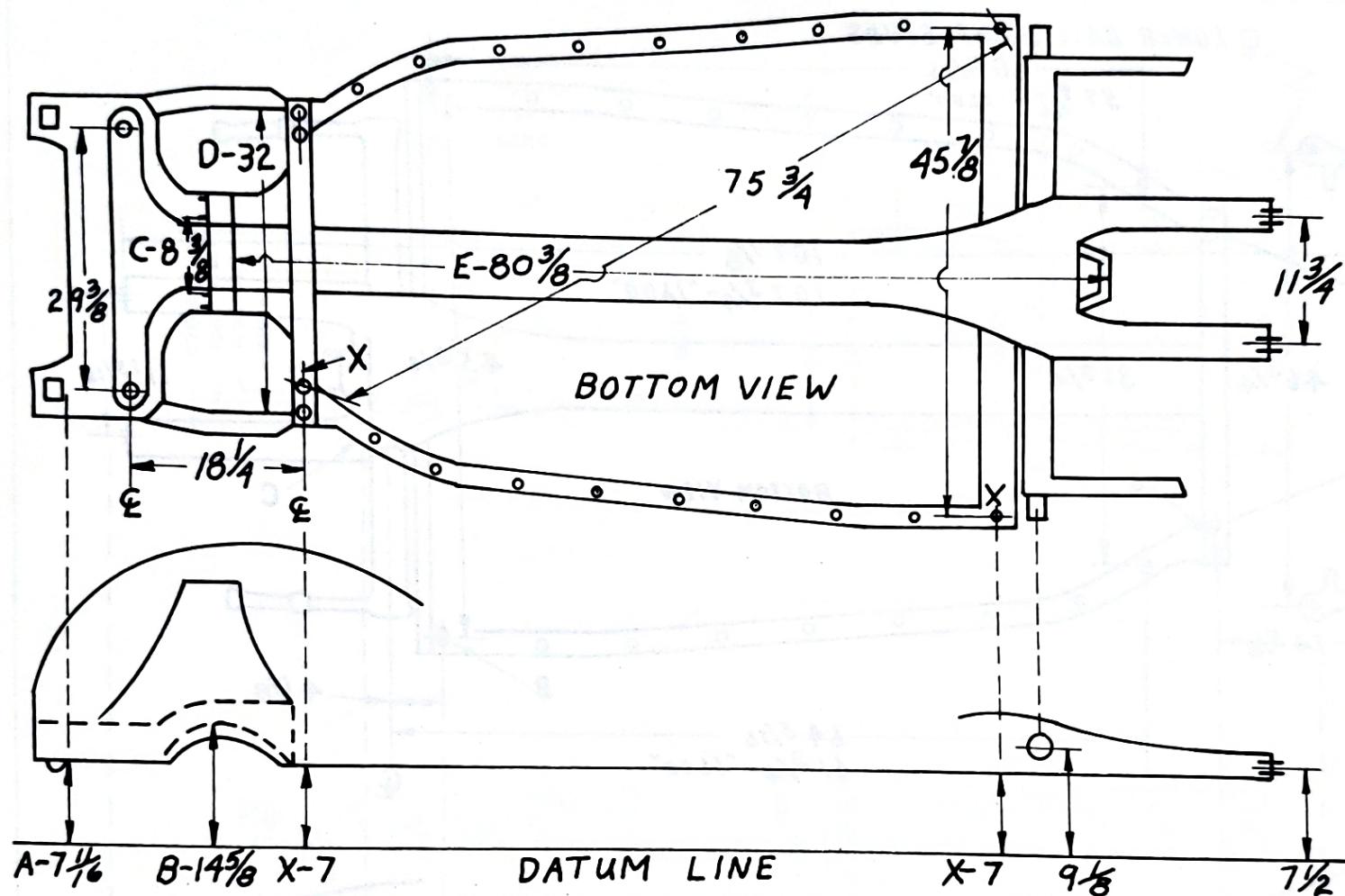
A: MX - 231.9mm RX - 150.6mm
B: MX - 132.5mm RX - 145.9mm

STATION WAGON

TOYOTA CORONA MARK II



Volkswagon

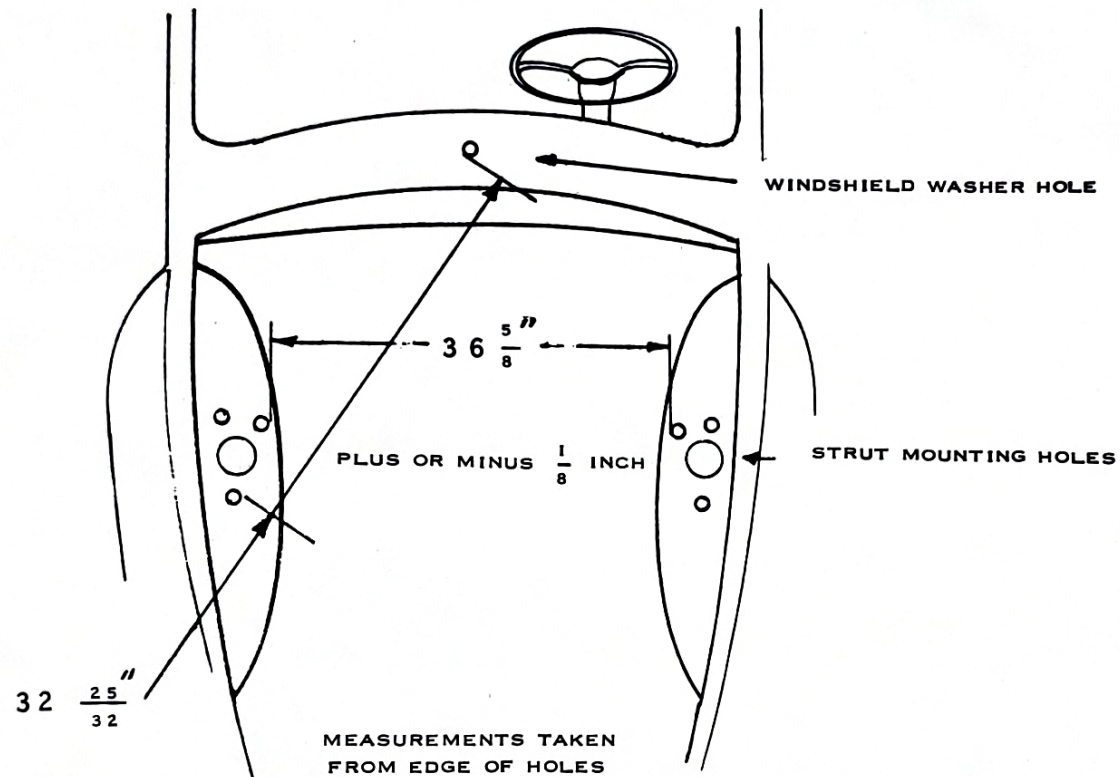


- A - 7 11/16 - Along side sway bar bracket at rear mounting bolt area to datum line.
- B - 14 5/8 - Bottom surface of stub rail in top of arch to datum line.
- C - 8 3/8 - Between inner flanges of camber adjusting brackets.
- D - 32 - Between front stub rails at lowermost steering gear and idler arm mounting areas.
- E - 80 3/8 - Rear edge of camber adjusting cross member to rear edge of bracket at transmission mount.
- X - - Locations for #2 and #3 datum gauges. Adjust front and rear sighting pins exactly 7 inches below floor pan surface at indicated X areas.

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Volkswagen Super Beetle

FRONT WHEELHOUSE DIMENSIONS FOR VW SUPER BEETLE



THESE MEASUREMENTS IMPORTANT FOR THE ALIGNMENT OF THE FRONT SUSPENSION

Volkswagen Super Beetle



